GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: August 29, 2005, 20:16:37 ; Search time 163 Seconds
(without alignments)
173.212 Million cell updates/sec

Title: US-10-622-134-2
Perfect score: 392
Sequence: 1 HPGIPSACCFRVTNKKISFQ.....KKWVQDAKKYLDQISQTTKP 73

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	392	100.0	73	2	AAR70252	Aar70252 Eotaxin c
2	392	100.0	96	2	AAW14991	Aaw14991 Guinea pi
3	392	100.0	96	5	ABB80899	Abb80899 Guinea pi
4	392	100.0	96	5	ABB80906	Abb80906 Guinea pi
5	392	100.0	96	8	ADR40237	Adr40237 Guinea pi
6	377	96.2	96	5	AAM52442	Aam52442 HIV_Nef1
7	375	95.7	73	2	AAR70251	Aar70251 Eotaxin c
8	371	94.6	70	5	ABB80910	Abb80910 Guinea pi
9	371	94.6	70	8	ADR40244	Adr40244 Guinea pi
10	362	92.3	73	2	AAY14230	Aay14230 Chemokine
11	330.5	84.3	70	5	AAO19998	Aao19998 70-mer pr
12	330.5	84.3	70	8	ADJ66685	Adj66685 Human mat
13	330.5	84.3	70	8	ADO32079	Ado32079 Eotaxin m
14	248	63.3	74	7	ADC89677	Adc89677 Human Eot
15	247	63.0	74	3	AAY69023	Aay69023 Amino aci
16	247	63.0	74	5	AAO20001	Aao20001 74-mer pr
17	247	63.0	74	5	AAO20008	Aao20008 Human che
18	247	63.0	74	5	ABB80912	Abb80912 Human eot
19	247	63.0	74	5	AAO14141	Aao14141 Human eot
20	247	63.0	74	7	ADF42623	Adf42623 Mature hu
21	247	63.0	74	8	ADJ66688	Adj66688 Human mat
22	247	63.0	74	8	ADO32082	Ado32082 Eotaxin p
23	247	63.0	74	8	ADR40246	Adr40246 Human mat
24	247	63.0	74	8	ADS19899	Ads19899 Modified
25	247	63.0	74	8	ADS19906	Ads19906 Human che
26	247	63.0	97	2	AAW00667	Aaw00667 Pancreas
27	247	63.0	97	2	AAW10099	Aaw10099 Human eot
28	247	63.0	97	2	AAW14990	Aaw14990 Human eos
29	247	63.0	97	3	AAB15794	Aab15794 Human che
30	247	63.0	97	5	ABG94303	Abg94303 Human Eot
31	247	63.0	97	5	ABB80913	Abb80913 Human eot
32	247	63.0	97	5	ABG80615	Abg80615 Human che
33	247	63.0	97	7	ADC38694	Adc38694 Human sec
34	247	63.0	97	7	ADK17210	Adk17210 Human Eot
35	247	63.0	97	8	ADR40248	Adr40248 Human ful
36	247	63.0	323	3	AAY69058	Aay69058 A chemoki
37	247	63.0	325	3	AAY69059	Aay69059 A chemoki
38	247	63.0	330	3	AAY69060	Aay69060 A chemoki
39	241	61.5	74	8	ADS19902	Ads19902 Modified
40	234	59.7	74	8	ADR90676	Adr90676 Human eot
41	233.5	59.6	73	7	ADE80854	Ade80854 Eotaxin c
42	233.5	59.6	73	7	ADE80877	Ade80877 EOTAXIN c
43	229.5	58.5	84	7	ADK17255	Adk17255 Mouse eot
44	229.5	58.5	96	7	ADK17286	Adk17286 Virus-lik
45	229.5	58.5	97	5	ABG94306	Abg94306 Mouse eot

ALIGNMENTS

RESULT 1
AAR70252
ID AAR70252 standard; protein; 73 AA.
XX
AC AAR70252;
XX
DT 16-OCT-2003 (revised)
DT 25-MAR-2003 (revised)
DT 30-SEP-1995 (first entry)
XX
DE Eotaxin chemoattractant protein.
XX
KW Eotaxin; chemoattractant; inflammatory disease; inflammation; asthma;
KW rhinitis; eczema; macrophage; lymphocyte; neutrophil; mast cell;
KW connective tissue cell; vascular endothelial cell; eosinophil.
XX
OS Cavia porcellus.
XX
PN WO9507985-A1.
XX
PD 23-MAR-1995.
XX
PF 14-SEP-1994; 94WO-GB002006.
XX
PR 14-SEP-1993; 93GB-00018984.
PR 29-APR-1994; 94GB-00008602.
XX
PA (NAHE-) NAT HEART & LUNG INST.
PA (LUDW-) LUDWIG INST CANCER RES.
XX
PI Williams TJ, Jose PJ, Griffiths-Johnson DA, Hsuan JJ;
XX
DR WPI; 1995-131353/17.
XX
PT Isolated chemo:attractant protein, termed eotaxin - useful for treating
PT asthma and other inflammatory diseases.
XX
PS Claim 6; Page 31; 50pp; English.
XX
CC Eotaxin is useful for treatment of asthma or other diseases with an
CC inflammatory component, especially accumulation of eosiniphils, e.g.
CC rhinitis or eczema. Eotaxin is obtainable from bronchoalveolar lavage
CC fluid of a subject after antigen challenge; from an inflammatory exudate
CC fluid or from an in vitro culture of macrophages, lymphocytes,
CC neutrophils, mast cells, airway cells, connective tissue cells, vascular
CC endothelial cells or eosinophils. (Updated on 25-MAR-2003 to correct PN
CC field.) (Updated on 16-OCT-2003 to standardise OS field)
XX

```
SQ   Sequence 73 AA;

  Query Match           100.0%;  Score 392;  DB 2;  Length 73;
  Best Local Similarity  100.0%;  Pred. No. 2e-38;
  Matches   73;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60

Qy         61 KKYLDQISQTTKP 73
              |||||||||||||
Db         61 KKYLDQISQTTKP 73


RESULT 2
AAW14991
ID   AAW14991 standard; protein; 96 AA.
XX
AC   AAW14991;
XX
DT   17-OCT-2003  (revised)
DT   02-DEC-1997  (first entry)
XX
DE   Guinea pig eosinocyte CC type chemokine eotaxin.
XX
KW   Guinea pig; eosinocyte; CC type; chemokine; eotaxin; calcium; skin;
KW   small intestine; agonist; screening; antagonist; inflammation; antibody;
KW   diagnosis; assay; disorder; asthma; allergy; atopic.
XX
OS   Cavia porcellus.
XX
PN   WO9712914-A1.
XX
PD   10-APR-1997.
XX
PF   01-OCT-1996;   96WO-JP002851.
XX
PR   05-OCT-1995;   95JP-00259067.
PR   28-FEB-1996;   96JP-00041965.
XX
PA   (SHIO ) SHIONOGI & CO LTD.
XX
PI   Kitaura M,  Nakajima T,  Harada S;
XX
DR   WPI; 1997-225168/20.
DR   N-PSDB; AAT62945.
XX
PT   Human CC chemokine (eotaxin) active on eosinocytes - useful for screening
PT   for eotaxin (ant)agonist(s), e.g. for treating inflammation.
XX
PS   Example 2; Page 30-31; 45pp; Japanese.
XX
CC   The present sequence is the guinea pig eosinocyte, CC type chemokine,
CC   eotaxin, which increases calcium flux in guinea pig eosinocytes. The
CC   eotaxin may be used to screen potential agonists and antagonists, which
CC   may be useful as anti-inflammatories. An anti-eotaxin antibody may be
CC   used in diagnostic assays for eotaxin, which is implicated in
CC   inflammatory disorders, e.g. asthma, other allergies and atopic skin
CC   inflammation. (Updated on 17-OCT-2003 to standardise OS field)
XX
SQ   Sequence 96 AA;

  Query Match           100.0%;  Score 392;  DB 2;  Length 96;
  Best Local Similarity  100.0%;  Pred. No. 2.7e-38;
  Matches   73;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 83

Qy         61 KKYLDQISQTTKP 73
              |||||||||||||
Db         84 KKYLDQISQTTKP 96


RESULT 3
ABB80899
ID   ABB80899 standard; protein; 96 AA.
XX
AC   ABB80899;
XX
DT   08-OCT-2002  (first entry)
XX
DE   Guinea pig eotaxin fragment.
XX
KW   Eotaxin; eosinophil; chemotaxis; cytostatic; antiinflammatory; cardiant;
KW   antiallergic; immunosuppressive; antiasthmatic; antiparasitic; histamine;
KW   dermatological; vasotropic; gene therapy; antianaphylactic.
XX
OS   Cavia sp.
XX
PN   US6403782-B1.
XX
PD   11-JUN-2002.
XX
PF   04-AUG-1999;   99US-00366887.
XX
PR   22-JUN-1995;   95US-0000449P.
PR   01-SEP-1995;   95US-00522713.
XX
PA   (HARD ) HARVARD COLLEGE.
PA   (GEHO ) GEN HOSPITAL CORP.
XX
PI   Luster AD,  Leder P,  Rothenberg M,  Garcia E;
XX
DR   WPI; 2002-565447/60.
XX
PT   New DNA encoding murine, guinea pig or human eotaxin polypeptides, useful
PT   for treating inflammation and tumorigenesis and in anticancer gene
PT   therapy.
XX
PS   Disclosure; Fig 3B; 42pp; English.
XX
CC   The invention relates to polynucleotides encoding murine, guinea pig or
CC   human eotaxin polypeptides. The eotaxin polynucleotides are useful for
CC   modulating eosinophil chemotaxis, for increasing eosinophil chemotactic
CC   events, and for improving prognosis with tumours in patients. They are
CC   also useful for treating inflammation and tumourigenesis, and for
CC   reducing inflammation and cytotoxic damage caused by eosinophils, for
CC   e.g. during asthmatic reactions, eosinophilic pneumonia and allergic
CC   diseases, inflammatory bowel diseases, atopic dermatitis, urticaria,
CC   vasculitis, parasitic infections and eosinophil cardiac diseases. The
CC   eotaxin polynucleotides are also useful for modulating histamine release
CC   by modulating eotaxin activity or expression during anaphylaxis,
CC   urticaria and allergic reactions. They are useful for detecting and
CC   monitoring eosinophil mediating conditions, and in anti-cancer gene
CC   therapy. The present sequence represents the guinea pig eotaxin fragment
XX
SQ   Sequence 96 AA;

  Query Match           100.0%;  Score 392;  DB 5;  Length 96;
  Best Local Similarity  100.0%;  Pred. No. 2.7e-38;
  Matches   73;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 83

Qy         61 KKYLDQISQTTKP 73
              |||||||||||||
Db         84 KKYLDQISQTTKP 96


RESULT 4
ABB80906
```

```
ID   ABB80906 standard; protein; 96 AA.
XX
AC   ABB80906;
XX
DT   08-OCT-2002  (first entry)
XX
DE   Guinea pig eotaxin polypeptide.
XX
KW   Eotaxin; eosinophil; chemotaxis; cytostatic; antiinflammatory; cardiant;
KW   antiallergic; immunosuppressive; antiasthmatic; antiparasitic; histamine;
KW   dermatological; vasotropic; gene therapy; antianaphylactic; guinea pig.
XX
OS   Cavia sp.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /note= "signal peptide"
FT   Protein         24. .96
FT                   /note= "mature protein"
XX
PN   US6403782-B1.
XX
PD   11-JUN-2002.
XX
PF   04-AUG-1999;   99US-00366887.
XX
PR   22-JUN-1995;   95US-0000449P.
PR   01-SEP-1995;   95US-00522713.
XX
PA   (HARD ) HARVARD COLLEGE.
PA   (GEHO ) GEN HOSPITAL CORP.
XX
PI   Luster AD,  Leder P,  Rothenberg M,  Garcia E;
XX
DR   WPI; 2002-565447/60.
DR   N-PSDB; ABN86332.
XX
PT   New DNA encoding murine, guinea pig or human eotaxin polypeptides, useful
PT   for treating inflammation and tumorigenesis and in anticancer gene
PT   therapy.
XX
PS   Claim 2; Fig 7; 42pp; English.
XX
CC   The invention relates to polynucleotides encoding murine, guinea pig or
CC   human eotaxin polypeptides. The eotaxin polynucleotides are useful for
CC   modulating eosinophil chemotaxis, for increasing eosinophil chemotactic
CC   events, and for improving prognosis with tumours in patients. They are
CC   also useful for treating inflammation and tumourigenesis, and for
CC   reducing inflammation and cytotoxic damage caused by eosinophils, for
CC   e.g. during asthmatic reactions, eosinophilic pneumonia and allergic
CC   diseases, inflammatory bowel diseases, atopic dermatitis, urticaria,
CC   vasculitis, parasitic infections and eosinophil cardiac diseases. The
CC   eotaxin polynucleotides are also useful for modulating histamine release
CC   by modulating eotaxin activity or expression during anaphylaxis,
CC   urticaria and allergic reactions. They are useful for detecting and
CC   monitoring eosinophil mediating conditions, and in anti-cancer gene
CC   therapy. The present sequence represents the guinea pig eotaxin
XX
SQ   Sequence 96 AA;

  Query Match             100.0%;  Score 392;  DB 5;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 2.7e-38;
  Matches   73;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 83

Qy         61 KKYLDQISQTTKP 73
              |||||||||||||
Db         84 KKYLDQISQTTKP 96
```

```
RESULT 5
ADR40237
ID   ADR40237 standard; protein; 96 AA.
XX
AC   ADR40237;
XX
DT   04-NOV-2004  (first entry)
XX
DE   Guinea pig eotaxin protein.
XX
KW   Guinea pig; eotaxin; chemokine; chemotactic; eosinophil; tumour;
KW   Hodgkin's lymphoma; plasmacytoma; lung carcinoma; melanoma; sarcoma;
KW   inflammation; cytotoxic damage; asthma; eosinophilic pneumonia;
KW   chronic obstructive pulmonary disease; cystic fibrosis; Crohn's disease;
KW   ulcerative colitis; atopic dermatitis; allergic conjunctivitis.
XX
OS   Cavia porcellus.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /note= "Signal peptide"
FT   Protein         24. .96
FT                   /note= "Mature eotaxin"
FT   Region          48
FT                   /note= "Claimed in claim 6"
FT   Region          76. .78
FT                   /note= "Claimed in claim 6"
XX
PN   US6780973-B1.
XX
PD   24-AUG-2004.
XX
PF   02-MAR-2000; 2000US-00517204.
XX
PR   22-JUN-1995;   95US-0000449P.
PR   01-SEP-1995;   95US-00522713.
XX
PA   (HARD ) HARVARD COLLEGE.
PA   (GEHO ) GEN HOSPITAL CORP.
XX
PI   Luster AD,  Leder P,  Rothenberg M,  Garcia E;
XX
DR   WPI; 2004-649107/63.
XX
PT   New substantially pure eotaxin polypeptide, useful for improving
PT   prognosis in patients with tumors such as Hodgkin's lymphoma and sarcoma,
PT   or for reducing inflammation and cytotoxic damage caused by eosinophils.
XX
PS   Claim 2; SEQ ID NO 16; 43pp; English.
XX
CC   The invention relates to a substantially pure eotaxin polypeptide (a
CC   chemokine) comprising mouse (ADR40228), Guinea Pig (ADR40237 and Human
CC   (ADR40248) eotaxin and having chemotactic activity capable of causing an
CC   increase in the number of eosinophils in target tissue by 20% or more
CC   relative to untreated control tissue of similar type. Also included is a
CC   substantially pure eotaxin polypeptide comprising an amino acid sequence
CC   that has 90% or more sequence identity with the above proteins, and
CC   encoded by a nucleic acid that hybridises under high stringency
CC   conditions with ADR40227,ADR40236 or ADR40247. The high stringency
CC   conditions involves hybridising a blot in 50% formamide, 10% dextran
CC   sulphate, 5X saline sodium citrate (SSC), 1X Denhardt's solution (0.0002%
CC   (w/v) polyvinylpyrrolidone, 0.0002% (w/v) bovine serum albumin (BSA),
CC   0.0002% (w/v) Ficoll 400), 1% (w/v) sodium dodecyl sulphate (SDS), 100
CC   microgramme/mL denatured herring sperm DNA, and 20 mM Tris at 42 deg C
CC   and washing the blot in 0.2X SSC, 0.5% SDS at 65 deg C. The eotaxin
CC   polypeptide is useful for increasing eosinophils in target tissue by 20%
CC   or more relative to untreated control tissue of similar type. It is
CC   useful for improving prognosis in patients with tumours (e.g. Hodgkin's
CC   lymphoma, plasmacytoma, lung carcinoma, melanoma, or sarcoma) or for
CC   reducing inflammation and cytotoxic damage (e.g. asthmatic reactions,
CC   eosinophilic pneumonia, chronic obstructive pulmonary disease, cystic
CC   fibrosis, Crohn's disease, ulcerative colitis, atopic dermatitis or
CC   allergic conjunctivitis) caused by eosinophils. The mouse eotaxin gene is
```

```
CC   located on chromosome 11. The present sequence represents Guinea pig
CC   eotaxin.
XX
SQ   Sequence 96 AA;

  Query Match             100.0%;  Score 392;  DB 8;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 2.7e-38;
  Matches   73;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 83

Qy         61 KKYLDQISQTTKP 73
              |||||||||||||
Db         84 KKYLDQISQTTKP 96


RESULT 6
AAM52442
ID   AAM52442 standard; protein; 96 AA.
XX
AC   AAM52442;
XX
DT   03-JUL-2002  (first entry)
XX
DE   HIV_Nef1 fusion protein #9.
XX
KW   Selenoprotein; HIV; Ebola virus; cancer; immune system disorder.
XX
OS   Rattus sp.
XX
PN   US6303295-B1.
XX
PD   16-OCT-2001.
XX
PF   12-JUL-1996;   96US-00679493.
XX
PR   14-JUL-1995;   95US-0001203P.
PR   01-SEP-1995;   95US-0003112P.
XX
PA   (UYGE-) UNIV GEORGIA RES FOUND INC.
XX
PI   Taylor EW,  Nadimpalli RG,  Ramanathan CS;
XX
DR   WPI; 2002-024734/03.
XX
PT   New selenoprotein for use in detecting certain viruses, e.g. human
PT   immunodeficiency virus (HIV) or Ebola, cancer and immune system
PT   disorders.
XX
PS   Disclosure; Col 73-76; 140pp; English.
XX
CC   The present invention relates to selenoproteins encoded in the genome of
CC   a virus, where the coding sequence of the selenoprotein is genetically
CC   engineered for expression in a nucleic acid construct. The invention also
CC   discloses a method for identifying selenoprotein coding sequences, for
CC   detecting certain viruses (e.g. HIV or Ebola), cancer and immune system
CC   disorders. The present sequence was used to illustrate the invention
XX
SQ   Sequence 96 AA;

  Query Match             96.2%;  Score 377;  DB 5;  Length 96;
  Best Local Similarity   97.3%;  Pred. No. 1.6e-36;
  Matches   71;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60
              || |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HPQIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 83

Qy         61 KKYLDQISQTTKP 73
              |||| ||||||||
Db         84 KKYLGQISQTTKP 96


RESULT 7
AAR70251
ID   AAR70251 standard; protein; 73 AA.
XX
AC   AAR70251;
XX
DT   25-MAR-2003  (revised)
DT   30-SEP-1995  (first entry)
XX
DE   Eotaxin chemoattractant protein.
XX
KW   Eotaxin; chemoattractant; inflammatory disease; inflammation; asthma;
KW   rhinitis; eczema; macrophage; lymphocyte; neutrophil; mast cell;
KW   connective tissue cell; vascular endothelial cell; eosinophil.
XX
OS   Cavia porcellus.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 54
FT                   /note= "Unidentified amino acid."
FT   Misc-difference 55
FT                   /note= "Unidentified amino acid."
FT   Misc-difference 70
FT                   /note= "Unidentified amino acid."
XX
PN   WO9507985-A1.
XX
PD   23-MAR-1995.
XX
PF   14-SEP-1994;   94WO-GB002006.
XX
PR   14-SEP-1993;   93GB-00018984.
PR   29-APR-1994;   94GB-00008602.
XX
PA   (NAHE-) NAT HEART & LUNG INST.
PA   (LUDW-) LUDWIG INST CANCER RES.
XX
PI   Williams TJ,  Jose PJ,  Griffiths-Johnson DA,  Hsuan JJ;
XX
DR   WPI; 1995-131353/17.
XX
PT   Isolated chemo:attractant protein, termed eotaxin - useful for treating
PT   asthma and other inflammatory diseases.
XX
PS   Claim 6; Page 31; 50pp; English.
XX
CC   Eotaxin is useful for treatment of asthma or other diseases with an
CC   inflammatory component, especially accumulation of eosiniphils, e.g.
CC   rhinitis or eczema. Eotaxin is obtainable from bronchoalveolar lavage
CC   fluid of a subject after antigen challenge; from an inflammatory exudate
CC   fluid or from an in vitro culture of macrophages, lymphocytes,
CC   neutrophils, mast cells, airway cells, connective tissue cells, vascular
CC   endothelial cells or eosinophils. (Updated on 25-MAR-2003 to correct PN
CC   field.)
XX
SQ   Sequence 73 AA;

  Query Match             95.7%;  Score 375;  DB 2;  Length 73;
  Best Local Similarity   95.9%;  Pred. No. 2e-36;
  Matches   70;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||  |||||
Db          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKXXWVQDA 60

Qy         61 KKYLDQISQTTKP 73
              ||||||||| |||
Db         61 KKYLDQISQXTKP 73


RESULT 8
```

```
ABB80910
ID   ABB80910 standard; protein; 70 AA.
XX
AC   ABB80910;
XX
DT   08-OCT-2002  (first entry)
XX
DE   Guinea pig eotaxin mature polypeptide.
XX
KW   Eotaxin; eosinophil; chemotaxis; cytostatic; antiinflammatory; cardiant;
KW   antiallergic; immunosuppressive; antiasthmatic; antiparasitic; histamine;
KW   dermatological; vasotropic; gene therapy; antianaphylactic; guinea pig.
XX
OS   Cavia sp.
XX
PN   US6403782-B1.
XX
PD   11-JUN-2002.
XX
PF   04-AUG-1999;   99US-00366887.
XX
PR   22-JUN-1995;   95US-0000449P.
PR   01-SEP-1995;   95US-00522713.
XX
PA   (HARD ) HARVARD COLLEGE.
PA   (GEHO ) GEN HOSPITAL CORP.
XX
PI   Luster AD,  Leder P,  Rothenberg M,  Garcia E;
XX
DR   WPI; 2002-565447/60.
XX
PT   New DNA encoding murine, guinea pig or human eotaxin polypeptides, useful
PT   for treating inflammation and tumorigenesis and in anticancer gene
PT   therapy.
XX
PS   Disclosure; Col 43-44; 42pp; English.
XX
CC   The invention relates to polynucleotides encoding murine, guinea pig or
CC   human eotaxin polypeptides. The eotaxin polynucleotides are useful for
CC   modulating eosinophil chemotaxis, for increasing eosinophil chemotactic
CC   events, and for improving prognosis with tumours in patients. They are
CC   also useful for treating inflammation and tumourigenesis, and for
CC   reducing inflammation and cytotoxic damage caused by eosinophils, for
CC   e.g. during asthmatic reactions, eosinophilic pneumonia and allergic
CC   diseases, inflammatory bowel diseases, atopic dermatitis, urticaria,
CC   vasculitis, parasitic infections and eosinophil cardiac diseases. The
CC   eotaxin polynucleotides are also useful for modulating histamine release
CC   by modulating eotaxin activity or expression during anaphylaxis,
CC   urticaria and allergic reactions. They are useful for detecting and
CC   monitoring eosinophil mediating conditions, and in anti-cancer gene
CC   therapy. The present sequence represents the guinea pig mature eotaxin
XX
SQ   Sequence 70 AA;

  Query Match          94.6%;  Score 371;  DB 5;  Length 70;
  Best Local Similarity   100.0%;  Pred. No. 5.7e-36;
  Matches   70;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 60

Qy         64 LDQISQTTKP 73
              ||||||||||
Db         61 LDQISQTTKP 70


RESULT 9
ADR40244
ID   ADR40244 standard; protein; 70 AA.
XX
AC   ADR40244;
XX
DT   04-NOV-2004  (first entry)
XX
DE   Guinea pig mature eotaxin protein.
XX
KW   Guinea pig; eotaxin; chemokine; chemotactic; eosinophil; tumour;
KW   Hodgkin's lymphoma; plasmacytoma; lung carcinoma; melanoma; sarcoma;
KW   inflammation; cytotoxic damage; asthma; eosinophilic pneumonia;
KW   chronic obstructive pulmonary disease; cystic fibrosis; Crohn's disease;
KW   ulcerative colitis; atopic dermatitis; allergic conjunctivitis.
XX
OS   Cavia porcellus.
XX
PN   US6780973-B1.
XX
PD   24-AUG-2004.
XX
PF   02-MAR-2000; 2000US-00517204.
XX
PR   22-JUN-1995;   95US-0000449P.
PR   01-SEP-1995;   95US-00522713.
XX
PA   (HARD ) HARVARD COLLEGE.
PA   (GEHO ) GEN HOSPITAL CORP.
XX
PI   Luster AD,  Leder P,  Rothenberg M,  Garcia E;
XX
DR   WPI; 2004-649107/63.
XX
PT   New substantially pure eotaxin polypeptide, useful for improving
PT   prognosis in patients with tumors such as Hodgkin's lymphoma and sarcoma,
PT   or for reducing inflammation and cytotoxic damage caused by eosinophils.
XX
PS   Disclosure; SEQ ID NO 23; 43pp; English.
XX
CC   The invention relates to a substantially pure eotaxin polypeptide (a
CC   chemokine) comprising mouse (ADR40228), Guinea Pig (ADR40237 and Human
CC   (ADR40248) eotaxin and having chemotactic activity capable of causing an
CC   increase in the number of eosinophils in target tissue by 20% or more
CC   relative to untreated control tissue of similar type. Also included is a
CC   substantially pure eotaxin polypeptide comprising an amino acid sequence
CC   that has 90% or more sequence identity with the above proteins, and
CC   encoded by a nucleic acid that hybridises under high stringency
CC   conditions with ADR40227,ADR40236 or ADR40247. The high stringency
CC   conditions involves hybridising a blot in 50% formamide, 10% dextran
CC   sulphate, 5X saline sodium citrate (SSC), 1X Denhardt's solution (0.0002%
CC   (w/v) polyvinylpyrrolidone, 0.0002% (w/v) bovine serum albumin (BSA),
CC   0.0002% (w/v) Ficoll 400), 1% (w/v) sodium dodecyl sulphate (SDS), 100
CC   microgramme/mL denatured herring sperm DNA, and 20 mM Tris at 42 deg C
CC   and washing the blot in 0.2X SSC, 0.5% SDS at 65 deg C. The eotaxin
CC   polypeptide is useful for increasing eosinophils in target tissue by 20%
CC   or more relative to untreated control tissue of similar type. It is
CC   useful for improving prognosis in patients with tumours (e.g. Hodgkin's
CC   lymphoma, plasmacytoma, lung carcinoma, melanoma, or sarcoma) or for
CC   reducing inflammation and cytotoxic damage (e.g. asthmatic reactions,
CC   eosinophilic pneumonia, chronic obstructive pulmonary disease, cystic
CC   fibrosis, Crohn's disease, ulcerative colitis, atopic dermatitis or
CC   allergic conjunctivitis) caused by eosinophils. The mouse eotaxin gene is
CC   located on chromosome 11. The present sequence represents the mature
CC   Guinea pig eotaxin.
XX
SQ   Sequence 70 AA;

  Query Match          94.6%;  Score 371;  DB 8;  Length 70;
  Best Local Similarity   100.0%;  Pred. No. 5.7e-36;
  Matches   70;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 60

Qy         64 LDQISQTTKP 73
              ||||||||||
Db         61 LDQISQTTKP 70
```

```
RESULT 10
AAY14230
ID   AAY14230 standard; peptide; 73 AA.
XX
AC   AAY14230;
XX
DT   29-JUL-1999  (first entry)
XX
DE   Chemokine Eotaxin.
XX
KW   Chemokine; immune response; monocyte chemoattractant protein-1; MCP-1;
KW   chemokine-induced activity; inflammatory response; vascular indication;
KW   haematopoietic cell-associated activity; tumour; coronary artery disease;
KW   myocardial infarction; unstable angina pectoris; atherosclerosis; asthma;
KW   vasculitis; lentiviral infection; low bone mineral density; suppressor;
KW   parasitic infection; autoimmune disease; psoriasis; wound healing;
KW   organ transplant rejection; rheumatoid arthritis; allergy; therapy;
KW   arachidonic acid pathway.
XX
OS   Homo sapiens.
XX
PN   WO9912968-A2.
XX
PD   18-MAR-1999.
XX
PF   11-SEP-1998;   98WO-US019052.
XX
PR   11-SEP-1997;   97US-00927939.
XX
PA   (NEOR-) NEORX CORP.
XX
PI   Grainger DJ,  Tatalick LM,  Kanaly ST;
XX
DR   WPI; 1999-347124/29.
XX
PT   New chemokine peptides and mimetics.
XX
PS   Example 1; Page 128; 208pp; English.
XX
CC   This sequence represents the chemokine Eotaxin. The invention relates to
CC   chemokine peptides and mimetics, particularly derived from monocyte
CC   chemoattractant protein-1 (MCP-1). The chemokine peptides and variants
CC   and derivatives can inhibit or reduce or increase, or enhance chemokine-
CC   induced activity. They can be used for increasing or enhancing an
CC   inflammatory response, an immune response or haematopoietic cell-
CC   associated activity at a tumour site. They can also be used for
CC   preventing or inhibiting an indication associated with haematopoietic
CC   cell recruitment or histamine release from basophils or mast cells. They
CC   can also be used to modulate the chemokine-induced activity of
CC   haematopoietic cells at a preselected physiological site, to treat a
CC   vascular indication, e.g. coronary artery disease, myocardial infarction,
CC   unstable angina pectoris, atherosclerosis, or vasculitis, lentiviral
CC   infection or replication (e.g. HIV), low bone mineral density, a
CC   parasitic infection in a vertebrate animal (e.g. malaria), an autoimmune
CC   disease, to suppress tumour growth in a vertebrate animal, to prevent or
CC   treat psoriasis in a mammal, to enhance wound healing, to prevent or
CC   treat asthma, organ transplant rejection, rheumatoid arthritis or
CC   allergy. They can also be used to inhibit a product or intermediate in
CC   the arachidonic acid pathway and where leukotriene, thromboxane and/or
CC   prostaglandin are inhibited and to prevent or inhibit an indication
CC   associated with elevated TNF-alpha
XX
SQ   Sequence 73 AA;

  Query Match            92.3%;  Score 362;  DB 2;  Length 73;
  Best Local Similarity  91.8%;  Pred. No. 6.9e-35;
  Matches   67;  Conservative    1;  Mismatches    5;  Indels    0;  Gaps    0;

Qy          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60
              |||||||||:  ||||||||||||||||||||||||||||||||||||||||  |||||
Db          1 HPGIPSACCYNFTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKXXWVQDA 60

Qy         61 KKYLDQISQTTKP 73
              ||||||||| |||
Db         61 KKYLDQISQXTKP 73


RESULT 11
AAO19998
ID   AAO19998 standard; protein; 70 AA.
XX
AC   AAO19998;
XX
DT   24-MAY-2002  (first entry)
XX
DE   70-mer protein of the invention.
XX
KW   Cytostatic; antibacterial; immunosuppressive; antipsoriatic; vulnerary;
KW   antiasthmatic; antiallergic; human chemokine beta4; chronic infection;
KW   solid tumour; human chemokine beta10; auto-immune disease; psoriasis;
KW   asthma; allergy; haematopoiesis regulation; wound healing; silicosis;
KW   chronic inflammatory; infective disease; prostaglandin-independent fever;
KW   bone marrow failure; histamine-mediated allergic reaction; sarcoidosis;
KW   hyper-eosinophilic syndrome; lung inflammation; gene therapy.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 55
FT                   /label= Xaa
FT                   /note= "Xaa is unknown"
FT   Misc-difference 56
FT                   /label= Xaa
FT                   /note= "Xaa is unknown"
XX
PN   US2002026044-A1.
XX
PD   28-FEB-2002.
XX
PF   03-MAR-1999;   99US-00261201.
XX
PR   23-AUG-1994;   94WO-US009484.
PR   02-JUN-1995;   95US-00458355.
XX
PA   (LIHH/) LI H.
PA   (ADAM/) ADAMS M D.
XX
PI   Li H,  Adams MD;
XX
DR   WPI; 2002-267534/31.
XX
PT   Novel isolated chemokine beta4 and encoded polynucleotide, useful for
PT   treating asthma, auto-immune diseases, and chronic infections.
XX
PS   Disclosure; Page 18; 25pp; English.
XX
CC   The invention relates to newly identified polypeptides and their encoding
CC   polynucleotides, including their use and production. More specifically
CC   the invention relates to an isolated human chemokine beta4 encoding
CC   polynucleotide, comprising residues -24, or 1 to 72 of a 96 nucleotide
CC   sequence, or residues -23 or 1 to 75 of a 98 nucleotide sequence, both
CC   given in the specification, or a sequence capable of hybridising to them
CC   and which is 70 % identical. The invention also relates to human
CC   chemokine beta-10. The polynucleotides and polypeptides of the invention
CC   can be used for treatment of disorders associated with human chemokine
CC   beta-4. The polypeptides and polynucleotides can be used for treating
CC   solid tumours, chronic infections, auto-immune diseases, psoriasis,
CC   asthma, allergies, haematopoiesis regulation, and to promote wound
CC   healing. The antagonists can be used to treat auto-immune diseases,
CC   chronic inflammatory and infective diseases, histamine-mediated allergic
CC   reactions, prostaglandin-independent fever, bone marrow failure,
CC   silicosis, sarcoidosis, hyper-eosinophilic syndrome, and lung
CC   inflammation. The polynucleotides of the invention can be used to treat
CC   disorders by means of gene therapy. This sequence represents a 70-mer
```

```
CC   protein of the invention. NOTE: This protein sequence is not further
CC   defined in the specification
XX
SQ   Sequence 70 AA;

  Query Match             84.3%;  Score 330.5;  DB 5;  Length 70;
  Best Local Similarity   91.4%;  Pred. No. 3.5e-31;
  Matches   64;  Conservative    1;  Mismatches    4;  Indels    1;  Gaps    1;

Qy          1 HPGIPSACCFRVTN-KKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQD 59
              ||||||||||||||  ||||| ||||||||||||||||||||||||||||:  ||||
Db          1 HPGIPSACCFRVTNICKISFQALKSYKIITSSKCPQTAIVFEIKPDKMICADPRXXWVQD 60

Qy         60 AKKYLDQISQ 69
              ||||||||||
Db         61 AKKYLDQISQ 70


RESULT 12
ADJ66685
ID   ADJ66685 standard; protein; 70 AA.
XX
AC   ADJ66685;
XX
DT   20-MAY-2004  (first entry)
XX
DE   Human mature eotaxin.
XX
KW   Human; chemokine; CKbeta-4; monocyte chemotactic protein; MCP-4; tumour;
KW   chronic infection; autoimmune disease; psoriasis; asthma; allergy;
KW   haematopoiesis; wound healing; infective disease;
KW   histamine-mediated allergic reaction; prostaglandin-independent fever;
KW   bone marrow failure; silicosis; sarcoidosis; hyper-eosinophilic syndrome;
KW   lung inflammation; eotaxin.
XX
OS   Homo sapiens.
XX
PN   US2004037805-A1.
XX
PD   26-FEB-2004.
XX
PF   25-AUG-2003; 2003US-00646770.
XX
PR   23-AUG-1994;   94WO-US009484.
PR   02-JUN-1995;   95US-00458355.
PR   05-JUN-1995;   95US-00462967.
PR   23-FEB-1996;   96US-00613822.
PR   22-NOV-2000; 2000US-00717209.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Li H, Adams MD, Gentz SH, Alderson R, Li Y, Parmelee D;
PI   White JR, Appelbaum ER;
XX
DR   WPI; 2004-191006/18.
XX
PT   New chemokine beta-4 or monocyte chemotactic protein-4 polypeptide for
PT   e.g. treating solid tumors, chronic infections, auto-immune diseases,
PT   psoriasis, asthma, or allergy.
XX
PS   Disclosure; SEQ ID NO 17; 34pp; English.
XX
CC   The invention relates to a polypeptide consisting of a chemokine (Ck)beta
CC   -4 polypeptide (appearing as ADJ66670), or an monocyte chemotactic
CC   protein (MCP)-4 polypeptide (appearing as ADJ66672). Also included are
CC   antibodies against the proteins, antagonists against the proteins, a
CC   polynucleotide encoding the proteins, a vector comprising the
CC   polynucleotide, a host cells comprising the vector, producing a
CC   polypeptide comprising expressing from the proteins from the host cell,
CC   producing cells capable of expressing a polypeptide comprising
CC   genetically engineering cells with the vector, an isolated DNA
CC   hybridisable to the polynucleotide above and encoding a polypeptide
CC   having Ckbeta-4 or MCP-4 activity, treating a patient having the need of
CC   Ckbeta-4 or MCP4 comprising administering the proteins to the patient and
CC   treating a patient having the need to inhibit Ckbeta-4 or MCP-4
CC   comprising administering a Ckbeta-4 or MCP-4 antagonist to the patient.
CC   The proteins are used to treat a patient having the need of Ckbeta-4 e.g.
CC   for treating solid tumours, chronic infections, auto-immune diseases,
CC   psoriasis, asthma, or allergy, to regulate haematopoiesis, and to promote
CC   wound healing. An antagonist to the proteins is used for treating auto-
CC   immune diseases, chronic inflammatory and infective diseases, histamine-
CC   mediated allergic reactions, prostaglandin-independent fever, bone marrow
CC   failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome and lung
CC   inflammation. The present sequence represents human mature eotaxin, a
CC   protein similar to human CKbeta-4.
XX
SQ   Sequence 70 AA;

  Query Match             84.3%;  Score 330.5;  DB 8;  Length 70;
  Best Local Similarity   91.4%;  Pred. No. 3.5e-31;
  Matches   64;  Conservative    1;  Mismatches    4;  Indels    1;  Gaps    1;

Qy          1 HPGIPSACCFRVTN-KKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQD 59
              ||||||||||||||  ||||| ||||||||||||||||||||||||||||:  ||||
Db          1 HPGIPSACCFRVTNICKISFQALKSYKIITSSKCPQTAIVFEIKPDKMICADPRXXWVQD 60

Qy         60 AKKYLDQISQ 69
              ||||||||||
Db         61 AKKYLDQISQ 70


RESULT 13
ADO32079
ID   ADO32079 standard; protein; 70 AA.
XX
AC   ADO32079;
XX
DT   15-JUL-2004  (first entry)
XX
DE   Eotaxin mature protein.
XX
KW   immunosuppressive; vulnerary; antipsoriatic; cytostatic; antiallergic;
KW   analgesic; osteopathic; gene therapy; human; chemokine;
KW   antibody production; leukaemia; tumour; autoimmune disease; psoriasis;
KW   wound; allergic reaction; prostaglandin-independent fever;
KW   bone marrow failure; eotaxin.
XX
OS   Unidentified.
XX
PN   US6673344-B1.
XX
PD   06-JAN-2004.
XX
PF   22-NOV-2000; 2000US-00717209.
XX
PR   23-AUG-1994;   94WO-US009484.
PR   02-JUN-1995;   95US-00458355.
PR   05-JUN-1995;   95US-00462967.
PR   23-FEB-1996;   96US-00613822.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Li H, Adams M, Lima SH, Alderson R, Li Y, Parmelee D, White J;
PI   Appelbaum E;
XX
DR   WPI; 2004-068608/07.
XX
PT   New antibody specific to human chemokine polypeptides, useful for
PT   preparing a composition for treating leukemia, tumor, autoimmune disease,
PT   psoriasis, bone marrow failure, wound or allergic reactions.
XX
PS   Disclosure; SEQ ID NO 17; 34pp; English.
XX
CC   The invention describes an isolated antibody or its portion that
CC   specifically binds to human chemokine polypeptides. Also described are: a
CC   hybridoma cell line that produces the antibody; and a composition
```

CC comprising the antibody and a carrier. The antibody is useful for
CC preparing a composition for treating leukaemia, tumour, autoimmune
CC disease, psoriasis, wound, allergic reactions, prostaglandin-independent
CC fever or bone marrow failure. This is the amino acid sequence of eotaxin
CC mature protein used in a comparison with human chemokine beta-4 (Ckbeta-
CC 4).
XX
SQ Sequence 70 AA;

Query Match 84.3%; Score 330.5; DB 8; Length 70;
Best Local Similarity 91.4%; Pred. No. 3.5e-31;
Matches 64; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

Qy 1 HPGIPSACCFRVTN-KKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQD 59
HPGIPSACCFRVTNICKISFQALKSYKIITSSKCPQTAIVFEIKPDKMICADPRXXWVQD
Db 1 HPGIPSACCFRVTNICKISFQALKSYKIITSSKCPQTAIVFEIKPDKMICADPRXXWVQD 60

Qy 60 AKKYLDQISQ 69
AKKYLDQISQ
Db 61 AKKYLDQISQ 70

RESULT 14
ADC89677
ID ADC89677 standard; protein; 74 AA.
XX
AC ADC89677;
XX
DT 01-JAN-2004 (first entry)
XX
DE Human Eotaxin SEQ ID NO:8.
XX
KW human; MCP-1; monocyte chemoattractant protein; MCP; immunosuppressive;
KW antiinflammatory; cytostatic; antimicrobial; vasotropic; gene therapy;
KW MCP-2; MCP-3; MCP-4; Eotaxin; leukocyte migration; leukocyte activation;
KW vascular disorder; cancer; inflammatory; autoimmune disease; infection.
XX
OS Synthetic.
OS Homo sapiens.
XX
PN WO2003084993-A1.
XX
PD 16-OCT-2003.
XX
PF 09-APR-2003; 2003WO-EP050097.
XX
PR 10-APR-2002; 2002US-0371442P.
XX
PA (ISTF) ARS APPLIED RES SYSTEMS HOLDING NV.
XX
PI Proudfoot A, Kosco-Vilbois M, Handel T;
XX
DR WPI; 2003-804294/75.
XX
PT New antagonists of MCP proteins, useful in preparing a composition for
PT treating or preventing diseases related to excessive leukocyte migration
PT and activation e.g. vascular, inflammatory or autoimmune disease, cancer
PT or infection.
XX
PS Example 3; SEQ ID NO 8; 63pp; English.
XX
CC The invention relates to novel antagonists of MCP proteins comprising
CC mutants of MCP proteins in which the following combinations of residues,
CC numbered on the sequence of human mature MCP-1, are substituted to
CC Alanine, Glycine, Serine, Threonine, Proline, Aspartic Acid, Asparagine,
CC Glutamic Acid or Glutamine: 18 and 19; 18 and/or 19, together with 58; 18
CC and/or 19, together with 66; 18 and/or 19, together with 58 and 66; and
CC 18 and/or 19, together with 24, 44, 49 and/or 75. A protein of the
CC invention has immunosuppressive, antiinflammatory, cytostatic,
CC antimicrobial, and vasotropic activity. The protein may have a use in
CC gene therapy, and in a vaccine. The MCP proteins are human MCP-1, human
CC MCP-2, human MCP-3, human MCP-4 or human Eotaxin. The MCP antagonists are
CC useful in preparing a composition for treating or preventing diseases
CC related to excessive leukocyte migration and activation, e.g., vascular
CC disorders, cancer, inflammatory or autoimmune disease or infection. The
CC present sequence is used in the exemplification of the invention.
XX
SQ Sequence 74 AA;

Query Match 63.3%; Score 248; DB 7; Length 74;
Best Local Similarity 62.9%; Pred. No. 2e-21;
Matches 44; Conservative 10; Mismatches 16; Indels 0; Gaps 0;

Qy 4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDSMKY
Db 5 VPTTCCFNLANRKIPLQRLESYRRITSGKCPQKAVIFKTKLAKEICADPKKKWVQDSMKY 64

Qy 64 LDQISQTTKP 73
LDQKSPTPKP
Db 65 LDQKSPTPKP 74

RESULT 15
AAY69023
ID AAY69023 standard; protein; 74 AA.
XX
AC AAY69023;
XX
DT 30-MAY-2000 (first entry)
XX
DE Amino acid sequence of chemokine receptor ligand eotaxin.
XX
KW Chemokine receptor; ligand; inflammatory response; immune effector cell;
KW secondary tissue damage; central nervous system injury; eotaxin;
KW CNS inflammatory disease; neurodegenerative disorder; heart disease;
KW inflammatory eye disease; inflammatory bowel disease;
KW inflammatory joint disease; inflammatory kidney; renal disease;
KW inflammatory lung disease; inflammatory nasal disease;
KW inflammatory thyroid disease; thyroiditis; cytokine-regulated cancer.
XX
OS Homo sapiens.
XX
PN WO200004926-A2.
XX
PD 03-FEB-2000.
XX
PF 21-JUL-1999; 99WO-CA000659.
XX
PR 22-JUL-1998; 98US-00120523.
XX
PA (OSPR-) OSPREY PHARM LTD.
XX
PI Mcdonald JR, Coggins PJ;
XX
DR WPI; 2000-182542/16.
XX
PT A new therapeutic agent comprising a conjugate for treating secondary
PT tissue damage and other disease conditions like Alzheimer's disease,
PT stroke, Parkinson's disease and atherosclerosis.
XX
PS Disclosure; Page 59; 204pp; English.
XX
CC The present sequence represents a chemokine receptor ligand. The present
CC ligand can be incorporated into the conjugates of the invention. The
CC specification describes a conjugate, comprising a targeted agent and a
CC chemokine receptor ligand. The conjugate binds to a chemokine receptor
CC resulting in internalisation of the targeted agent in cells bearing the
CC receptor. The conjugates are used for formulating a medicament or for
CC treating disorders associated with inflammatory responses resulting from
CC activation, proliferation and migration of immune effector cells. The
CC disorders or disease states comprise secondary tissue damage such as
CC central nervous system (CNS) injury, CNS inflammatory diseases,
CC neurodegenerative disorders, heart disease, inflammatory eye diseases,
CC inflammatory bowel diseases, inflammatory joint diseases, inflammatory
CC kidney or renal diseases, inflammatory lung diseases, inflammatory nasal
CC diseases, inflammatory thyroid disease such as thyroiditis, or cytokine-

CC regulated cancers
XX
SQ Sequence 74 AA;

Query Match 63.0%; Score 247; DB 3; Length 74;
Best Local Similarity 62.9%; Pred. No. 2.7e-21;
Matches 44; Conservative 10; Mismatches 16; Indels 0; Gaps 0;

```
Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              :|: ||| : |:||  |||:||: ||| |||| |::|: |  | ||||||||||||: ||
Db          5 VPTTCCFNLANRKIPLQRLESYRRITSGKCPQKAVIFKTKLAKDICADPKKKWVQDSMKY 64

Qy         64 LDQISQTTKP 73
              ||| | | ||
Db         65 LDQKSPTPKP 74
```

Search completed: August 29, 2005, 20:32:29
Job time : 165 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: August 29, 2005, 20:25:42 ; Search time 40 Seconds
(without alignments)
175.596 Million cell updates/sec

Title: US-10-622-134-2
Perfect score: 392
Sequence: 1 HPGIPSACCFRVTNKKISFQ.....KKWVQDAKKYLDQISQTTKP 73

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	392	100.0	96	2	I48099	eotaxin precursor
2	385	98.2	96	2	JC2478	eotaxin precursor
3	244	62.2	97	2	JC4912	eotaxin precursor
4	227	57.9	99	2	JC2417	monocyte chemoattr
5	217	55.4	99	2	JC2136	monocyte chemoattr
6	215	54.8	99	2	JC5295	monocyte chemotact
7	214	54.6	99	2	A60299	monocyte chemoattr
8	208	53.1	109	2	A54678	monocyte chemotact
9	206	52.6	99	1	A39296	monocyte chemoattr
10	206	52.6	99	2	JC2336	monocyte chemoattr
11	196	50.0	125	2	I46857	monocyte chemoattr
12	184	46.9	72	2	A55984	monocyte chemotact
13	183	46.7	148	1	A30209	PDGF-inducible JE
14	172.5	44.0	148	1	S07723	immediate-early se
15	169.5	43.2	120	2	I48147	monocyte chemoattr
16	157.5	40.2	97	2	A48093	monocytic cytokine
17	131.5	33.5	92	1	A31767	macrophage inflamm
18	124.5	31.8	91	1	A46539	monocyte chemoattr
19	124	31.6	92	2	A30574	macrophage inflamm
20	124	31.6	92	2	I46730	immune activation
21	124	31.6	93	2	B35673	LD78-beta protein
22	115.5	29.5	92	2	I52322	macrophage inflamm
23	113	28.8	91	1	A28815	monocyte chemoattr
24	113	28.8	92	2	A32393	macrophage inflamm
25	104.5	26.7	92	2	C30552	macrophage inflamm
26	104.5	26.7	114	1	ETHUL	lymphotactin precu
27	101	25.8	50	2	C60407	monocyte adherence
28	98.5	25.1	101	2	I48148	Neutrophil attract
29	96.5	24.6	114	1	ETMSL	lymphotactin precu
30	88.5	22.6	96	2	A37236	I-309 protein prec
31	88	22.4	92	2	S24236	TCA3 protein - mou
32	82	20.9	99	2	A37034	interleukin-8 prec
33	81	20.7	120	2	JE0177	lymphocyte and mon
34	78.5	20.0	101	2	S42496	interleukin-8 prec
35	76.5	19.5	103	2	A53096	interleukin-8 prec
36	75.5	19.3	89	2	I53416	interleukin-8 homo
37	75.5	19.3	89	2	A53497	pre-B-cell growth-
38	75.5	19.3	93	2	I81182	cytokine - mouse
39	74.5	19.0	93	2	G01540	cytokine SDF-1-bet
40	74.5	19.0	101	2	I46871	interleukin-8 - ra
41	72.5	18.5	95	2	JN0841	interleukin-8 - do
42	68.5	17.5	116	2	I49555	gene C10 protein -
43	67.5	17.2	98	2	A45492	IP-10 precursor -
44	67.5	17.2	132	2	A57325	C-X-C chemokine LI
45	67.5	17.2	4540	2	T30838	cytoplasmic dynein

ALIGNMENTS

RESULT 1
I48099
eotaxin precursor - guinea pig
C;Species: Cavia porcellus (guinea pig)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
C;Accession: I48099
R;Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.; Leder, P.
J. Exp. Med. 181, 1211-1216, 1995
A;Title: Constitutive and allergen-induced expression of eotaxin mRNA in the guinea pig
A;Reference number: I48099; MUID:95173589; PMID:7869037
A;Accession: I48099
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-96 <RES>
A;Cross-references: UNIPROT:P80325; EMBL:U18941; NID:g687655; PIDN:AAC52180.1; PID:g6876
C;Superfamily: macrophage inflammatory protein

Query Match 100.0%; Score 392; DB 2; Length 96;
Best Local Similarity 100.0%; Pred. No. 1.1e-36;
Matches 73; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 83

Qy         61 KKYLDQISQTTKP 73
              |||||||||||||
Db         84 KKYLDQISQTTKP 96
```

RESULT 2
JC2478
eotaxin precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change 16-Jul-1999
C;Accession: JC2478
R;Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman, N.; Wells, T.N.C.; William
Biochem. Biophys. Res. Commun. 205, 788-794, 1994
A;Title: Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA e
A;Reference number: JC2478; MUID:95091818; PMID:7999113
A;Accession: JC2478
A;Molecule type: mRNA
A;Residues: 1-96 <JOS>
A;Cross-references: EMBL:X77603; NID:g602551; PIDN:CAA54698.1; PID:g602552
C;Comment: This protein is identified as a potent eosinophil chemoattractant.
C;Superfamily: macrophage inflammatory protein
C;Keywords: glycoprotein
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-96/Product: eotaxin #status predicted <MAT>
F;93/Binding site: carbohydrate (Thr) (covalent) #status predicted

Query Match 98.2%; Score 385; DB 2; Length 96;

```
  Best Local Similarity   98.6%;  Pred. No. 6.4e-36;
  Matches   72;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 83

Qy         61 KKYLDQISQTTKP 73
              |||| ||||||||
Db         84 KKYLGQISQTTKP 96


RESULT 3
JC4912
eotaxin precursor - human
C;Species: Homo sapiens (man)
C;Date: 01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change 09-Jul-2004
C;Accession: JC4912
R;Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R.; Christophers, E.; Schroe
Biochem. Biophys. Res. Commun. 225, 1045-1051, 1996
A;Title: Human dermal fibroblasts express eotaxin: Molecular cloning, mRNA expression, a
A;Reference number: JC4912; MUID:96374440; PMID:8780731
A;Accession: JC4912
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-97 <BAR>
A;Cross-references: UNIPROT:P51671; EMBL:Z75668; NID:g1531982; PIDN:CAA99997.1; PID:g153
A;Experimental source: dermal fibroblast
C;Comment: This protein has eosinophil specific chemotatic activity.
C;Superfamily: macrophage inflammatory protein
C;Keywords: fibroblast
F;1-18/Domain: signal sequence #status predicted <SIG>
F;19-97/Product: eotaxin #status predicted <MAT>

  Query Match            62.2%;  Score 244;  DB 2;  Length 97;
  Best Local Similarity   61.4%;  Pred. No. 3.6e-20;
  Matches   43;  Conservative   11;  Mismatches   16;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              :|: ||| : |:||  |||:||: ||| |||| |::|: |  | |||||||:||||: ||
Db         28 VPTTCCFNLANRKIPLQRLESYRRITSGKCPQKAVIFKTKLAKDICADPKKRWVQDSMKY 87

Qy         64 LDQISQTTKP 73
              ||| | | ||
Db         88 LDQKSPTPKP 97


RESULT 4
JC2417
monocyte chemoattractant protein-2 precursor - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change 09-Jul-2004
C;Accession: JC2417
R;Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Scheit, K.H.
Biochem. Biophys. Res. Commun. 205, 148-153, 1994
A;Title: Porcine luteal cells express monocyte chemoattractant protein-2 (MCP-2): Analys
A;Reference number: JC2417; MUID:95091716; PMID:7999015
A;Accession: JC2417
A;Molecule type: mRNA
A;Residues: 1-99 <HOS>
A;Cross-references: UNIPROT:P49873; GB:Z48480; NID:g683718; PIDN:CAA88371.1; PID:g683719
A;Experimental source: corpus luteum
C;Superfamily: macrophage inflammatory protein
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-99/Product: monocyte chemoattractant protein-2 #status predicted <MAT>

  Query Match            57.9%;  Score 227;  DB 2;  Length 99;
  Best Local Similarity   57.1%;  Pred. No. 2.9e-18;
  Matches   40;  Conservative   14;  Mismatches   16;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              ||  ||| : | ||  |::|:||  ||:|:||| |::|: | || :||||::||||:: |
Db         30 IPITCCFGLVNGKIPFKKLESYTRITNSQCPQEAVIFKTKADKEVCADPQQKWVQNSMKL 89

Qy         64 LDQISQTTKP 73
              ||| ||| ||
Db         90 LDQKSQTPKP 99


RESULT 5
JC2136
monocyte chemoattractant protein-1 precursor - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change 09-Jul-2004
C;Accession: JC2136; S57498
R;Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Scheit, K.H.
Biochem. Biophys. Res. Commun. 199, 962-968, 1994
A;Title: Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): Analysi
A;Reference number: JC2136; MUID:94183284; PMID:7510962
A;Accession: JC2136
A;Molecule type: mRNA
A;Residues: 1-99 <HOS>
A;Cross-references: UNIPROT:P42831; GB:Z48479; NID:g683716; PIDN:CAA88370.1; PID:g683717
R;Zach, O.
submitted to the EMBL Data Library, July 1994
A;Reference number: S57497
A;Accession: S57498
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-99 <ZAC>
A;Cross-references: EMBL:X79416; NID:g872312; PIDN:CAA55945.1; PID:g872313
C;Superfamily: macrophage inflammatory protein
C;Keywords: glycoprotein
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-99/Product: monocyte chemoattractant protein-1 #status predicted <MAT>
F;94/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match            55.4%;  Score 217;  DB 2;  Length 99;
  Best Local Similarity   55.1%;  Pred. No. 3.8e-17;
  Matches   38;  Conservative   15;  Mismatches   16;  Indels    0;  Gaps    0;

Qy          5 PSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYL 64
              |  ||: :|:|||| ||| ||: :|||||: |::|:    | |||:||:|||||:  :|
Db         31 PVTCCYTLTSKKISMQRLMSYRRVTSSKCPKEAVIFKTIAGKEICAEPKQKWVQDSISHL 90

Qy         65 DQISQTTKP 73
              |: :|| ||
Db         91 DKKNQTPKP 99


RESULT 6
JC5295
monocyte chemotactic protein-2 precursor - human
C;Species: Homo sapiens (man)
C;Date: 02-May-1997 #sequence_revision 18-Jul-1997 #text_change 09-Jul-2004
C;Accession: JC5295
R;Van Coillie, E.; Froyen, G.; Nomiyama, H.; Miura, R.; Fiten, P.; Van Aelst, I.; Van Dan
Biochem. Biophys. Res. Commun. 231, 726-730, 1997
A;Title: Human monocyte chemotactic protein-2: cDNA cloning and regulated expression of m
A;Reference number: JC5295; MUID:97224420; PMID:9070881
A;Accession: JC5295
A;Molecule type: mRNA
A;Residues: 1-99 <VAN>
A;Cross-references: UNIPROT:P80075; GB:Y10802; NID:g1924937; PIDN:CAA71760.1; PID:g192493
A;Experimental source: bone marrow
C;Comment: This protein belongs to the beta-chemokine family which is one of the major HI
tis and in tumor biology, and contribute to the trafficking and recuitment of the respons
C;Genetics:
A;Gene: mcp-2
C;Superfamily: macrophage inflammatory protein
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-99/Product: monocyte chemotactic protein-2 #status predicted <MAT>

  Query Match            54.8%;  Score 215;  DB 2;  Length 99;
  Best Local Similarity   52.9%;  Pred. No. 6.3e-17;
  Matches   37;  Conservative   15;  Mismatches   18;  Indels    0;  Gaps    0;
```

```
Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              ||.|||  | |:||  |||:||  ||: :||: |::|: :  | :|||||::||:|: |:
Db         30 IPITCCFNVINRKIPIQRLESYTRITNIQCPKEAVIFKTQRGKEVCADPKERWVRDSMKH 89

Qy         64 LDQISQTTKP 73
                ||||  |  ||
Db         90 LDQIFQNLKP 99
```

RESULT 7
A60299
monocyte chemoattractant protein 1 precursor - human
N;Alternate names: GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF; MCP-1; mc
N;Contains: glioma-derived chemotactic factor 2 (GDCF-2)
C;Species: Homo sapiens (man)
C;Date: 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change 09-Jul-2004
C;Accession: A35474; A33476; S03339; I51841; A60299; A32300; A32396; A34561; I57488; JC1
R;Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
Biochem. Biophys. Res. Commun. 169, 346-351, 1990
A;Title: Structure of human monocyte chemotactic protein gene and its regulation by TPA.
A;Reference number: A35474; MUID:90290466; PMID:2357211
A;Accession: A35474
A;Molecule type: DNA
A;Residues: 1-99 <SHY>
A;Cross-references: UNIPROT:P13500; GB:M37719; NID:g187447; PIDN:AAA18102.1; PID:g487124
R;Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
Mol. Cell. Biol. 9, 4687-4695, 1989
A;Title: The human homolog of the JE gene encodes a monocyte secretory protein.
A;Reference number: A33476; MUID:90097880; PMID:2513477
A;Accession: A33476
A;Molecule type: mRNA
A;Residues: 1-99 <ROL>
A;Cross-references: GB:M30816; GB:M31625; GB:M31626; NID:g188701; PIDN:AAA36330.1; PID:g
R;Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman, M.I.; Leonard, E.J.
FEBS Lett. 244, 487-493, 1989
A;Title: Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, exp
.
A;Reference number: S03339; MUID:89153605; PMID:2465924
A;Accession: S03339
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-99 <YOS>
A;Cross-references: GB:X14768; NID:g34513; PIDN:CAA32876.1; PID:g34514
A;Experimental source: glioma cell line U-105MG
R;Yoshimura, T.; Leonard, E.J.
Adv. Exp. Med. Biol. 305, 47-56, 1991
A;Title: Human monocyte chemoattractant protein-1 (MCP-1).
A;Reference number: I51841; MUID:92095166; PMID:1661560
A;Accession: I51841
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-99 <YO2>
A;Cross-references: GB:S71513; NID:g240867; PIDN:AAB20651.1; PID:g240868
R;Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani, A.
Int. J. Cancer 45, 795-797, 1990
A;Title: A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic f
-1/MCAF).
A;Reference number: A60299; MUID:90216082; PMID:2182547
A;Accession: A60299
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-99 <BOT>
R;Furutani, Y.; Nomura, H.; Notake, M.; Oyamada, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.
Biochem. Biophys. Res. Commun. 159, 249-255, 1989
A;Title: Cloning and sequencing of the cDNA for human monocyte chemotactic and activatin
A;Reference number: A32300; MUID:89165862; PMID:2923622
A;Accession: A32300
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-99 <FUR>
A;Cross-references: GB:M24545; NID:g187434; PIDN:AAA18164.1; PID:g307163
R;Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz,
Proc. Natl. Acad. Sci. U.S.A. 86, 1850-1854, 1989
A;Title: Complete amino acid sequence of a human monocyte chemoattractant, a putative me
A;Reference number: A32396; MUID:89184525; PMID:2648385
A;Accession: A32396
A;Molecule type: protein
A;Residues: 'X',25-99 <ROB>
R;Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van Damme, J.
Biochem. Biophys. Res. Commun. 167, 904-909, 1990
A;Title: Identification of the monocyte chemotactic protein from human osteosarcoma cell
A;Reference number: A34561; MUID:90211336; PMID:2322286
A;Accession: A34561
A;Molecule type: protein
A;Residues: 29-33,'XX',36-52;82-92 <DEC>
R;Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E.
Mol. Cell. Biochem. 126, 61-68, 1993
A;Title: The expression of monocyte chemotactic protein (MCP-1) in human vascular endoth
A;Reference number: I57488; MUID:94150478; PMID:8107690
A;Accession: I57488
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-99 <LIY>
A;Cross-references: GB:S69738; NID:g545464; PIDN:AAB29926.1; PID:g545465
R;Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F.
Chinese J. Microbiol. Immunol. 14, 29-32, 1994
A;Title: The PCR, cloning and sequencing of human monocyte chemoattractant protein-1 (MC
A;Reference number: JC1096
A;Accession: JC1096
A;Molecule type: mRNA
A;Residues: 24-28,'Q',30-99 <YEQ>
C;Genetics:
A;Gene: GDB:SCYA2
A;Cross-references: GDB:125279; OMIM:158105
A;Map position: 17q11.2-17q12
C;Superfamily: macrophage inflammatory protein
C;Keywords: cytokine; glycoprotein; inflammation; pyroglutamic acid
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-99/Product: monocyte chemoattractant protein 1 #status experimental <MAT>
F;29-99/Product: monocyte chemoattractant protein 1, short form #status experimental <MA
F;24/Modified site: pyrrolidone carboxylic acid (Gln) (in mature form) #status experimen
F;37/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match   54.6%; Score 214; DB 2; Length 99;
  Best Local Similarity   57.4%; Pred. No. 8.1e-17;
  Matches   39; Conservative   12; Mismatches   17; Indels   0; Gaps   0;

```
Qy          5 PSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYL 64
              |  ||:  ||:||| ||| ||: ||||||| |::|:    | ||||||:|||||:  :|
Db         31 PVTCCYNFTNRKISVQRLASYRRITSSKCPKEAVIFKTIVAKEICADPKQKWVQDSMDHL 90

Qy         65 DQISQTTK 72
                |: :|| |
Db         91 DKQTQTPK 98
```

RESULT 8
A54678
monocyte chemotactic protein 3 precursor - human
N;Alternate names: monocyte chemoattractant protein MCP-3
C;Species: Homo sapiens (man)
C;Date: 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change 16-Jul-1999
C;Accession: A54678; JC1478; S32222
R;Opdenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.; Speleman, F.; Laureys, G.
Genomics 21, 403-408, 1994
A;Title: The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the
A;Reference number: A54678; MUID:94375065; PMID:7916328
A;Accession: A54678
A;Molecule type: DNA
A;Residues: 1-109 <OPD>
A;Cross-references: GB:X72309
R;Opdenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme, J.
Biochem. Biophys. Res. Commun. 191, 535-542, 1993
A;Title: Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the cDNA and
A;Reference number: JC1478; MUID:93213290; PMID:8461011

A;Accession: JC1478
A;Molecule type: mRNA
A;Residues: 1-109 <OP2>
A;Cross-references: GB:X72308; GB:S57464; NID:g3928270; PIDN:CAA51055.1; PID:g313708
R;Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzun, P.; Magazin, M.; Miloux,
submitted to the EMBL Data Library, March 1993
A;Description: Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattrac
A;Reference number: S32222
A;Accession: S32222
A;Molecule type: mRNA
A;Residues: 1-109 <MIN>
A;Cross-references: EMBL:X71087; NID:g288396; PIDN:CAA50405.1; PID:g288397
C;Comment: This protein induces proteinase secretion and chemotaxis by macrophages and m
C;Genetics:
A;Gene: GDB:SCYA7; SCYA6; MCP-3
A;Cross-references: GDB:138473; OMIM:158106
A;Map position: 17q11-17q12
A;Introns: 36/1; 75/2
C;Superfamily: macrophage inflammatory protein
C;Keywords: cytokine; glycoprotein; inflammation
F;1-33/Domain: signal sequence #status predicted <SIG>
F;34-109/Product: monocyte chemotactic protein 3 #status predicted <MAT>
F;39/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 53.1%; Score 208; DB 2; Length 109;
Best Local Similarity 56.7%; Pred. No. 4.2e-16;
Matches 38; Conservative 12; Mismatches 17; Indels 0; Gaps 0;

Qy 6 SACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYLD 65
Db 42 TTCCYRFINKKIPKQRLESYRRTTSSHCPREAVIFKTKLDKEICADPTQKWVQDFMKHLD 101

Qy 66 QISQTTK 72
Db 102 KKTQTPK 108

RESULT 9
A39296
monocyte chemoattractant protein 1 precursor - bovine
N;Alternate names: monocyte chemotactic factor 1; seminal plasma protein P6
C;Species: Bos primigenius taurus (cattle)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: A39296; B39296
R;Wempe, F.; Henschen, A.; Scheit, K.H.
DNA Cell Biol. 10, 671-679, 1991
A;Title: Gene expression and cDNA cloning identified a major basic protein constituent o
A;Reference number: A39296; MUID:92096117; PMID:1721821
A;Accession: A39296
A;Molecule type: mRNA
A;Residues: 1-99 <WEM>
A;Cross-references: UNIPROT:P28291; GB:M84602; GB:M85264; NID:g163394; PIDN:AAA30651.1;
A;Accession: B39296
A;Molecule type: protein
A;Residues: 50-68,'X',70-74,'X',76 <WE2>
A;Experimental source: seminal vesicle
C;Superfamily: macrophage inflammatory protein
C;Keywords: glycoprotein
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-99/Product: monocyte chemoattractant protein 1 #status predicted <MAT>
F;94/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 52.6%; Score 206; DB 1; Length 99;
Best Local Similarity 53.7%; Pred. No. 6.3e-16;
Matches 36; Conservative 15; Mismatches 16; Indels 0; Gaps 0;

Qy 7 ACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYLDQ 66
Db 33 ACCYTFNSKKISMQRLMNYRRVTSSKCPKEAVIFKTILGKELCADPKQKWVQDSINYLNK 92

Qy 67 ISQTTKP 73
Db 93 KNQTPKP 99

RESULT 10
JC2336
monocyte chemoattractant protein-1 - bovine
C;Species: Bos primigenius indicus (zebu cattle)
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 03-May-1996
C;Accession: JC2336
R;Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
Biochem. Biophys. Res. Commun. 202, 1272-1279, 1994
A;Title: Characterization of the bovine monocyte chemoattractant protein-1 gene.
A;Reference number: JC2336; MUID:94338337; PMID:8060303
A;Accession: JC2336
A;Molecule type: protein
A;Residues: 1-99 <WEM>
C;Genetics:
A;Gene: MCP-1
A;Introns: 26/1; 65/2
C;Superfamily: macrophage inflammatory protein

Query Match 52.6%; Score 206; DB 2; Length 99;
Best Local Similarity 53.7%; Pred. No. 6.3e-16;
Matches 36; Conservative 15; Mismatches 16; Indels 0; Gaps 0;

Qy 7 ACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYLDQ 66
Db 33 ACCYTFNSKKISMQRLMNYRRVTSSKCPKEAVIFKTILGKELCADPKQKWVQDSINYLNK 92

Qy 67 ISQTTKP 73
Db 93 KNQTPKP 99

RESULT 11
I46857
monocyte chemoattractant protein-1 - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004
C;Accession: I46857
R;Yoshimura, T.; Yuhki, N.
J. Immunol. 146, 3483-3488, 1991
A;Title: Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein
A;Reference number: I46857; MUID:91225489; PMID:2026877
A;Accession: I46857
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-125 <YOS>
A;Cross-references: UNIPROT:P28292; GB:M57440; NID:g165469; PIDN:AAA31386.1; PID:g165470
C;Superfamily: macrophage inflammatory protein

Query Match 50.0%; Score 196; DB 2; Length 125;
Best Local Similarity 55.9%; Pred. No. 1e-14;
Matches 38; Conservative 9; Mismatches 21; Indels 0; Gaps 0;

Qy 5 PSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYL 64
Db 31 PVTCCYTFTNKTISVKRLMSYRRINSTKCPKEAVIFMTKLAKGICADPKQKWVQDAIANL 90

Qy 65 DQISQTTK 72
Db 91 DKKMQTPK 98

RESULT 12
A55984
monocyte chemotactic protein bo-MCP-1b - bovine (fragments)
C;Species: Bos primigenius taurus (cattle)
C;Date: 19-Jan-1996 #sequence_revision 19-Jan-1996 #text_change 09-May-1997
C;Accession: A55984
R;Proost, P.; Wuyts, A.; Lenaerts, J.P.; Van Damme, J.
Biochemistry 33, 13406-13412, 1994
A;Title: Purification, sequence analysis, and biological characterization of a second bo
A;Reference number: A55984; MUID:95034774; PMID:7947749

```
A;Accession: A55984
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-72 <PRO>
C;Superfamily: macrophage inflammatory protein

  Query Match            46.9%;  Score 184;  DB 2;  Length 72;
  Best Local Similarity  50.7%;  Pred. No. 1.3e-13;
  Matches   35;  Conservative   14;  Mismatches   18;  Indels    2;  Gaps    1;

Qy          5 PSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYL 64
              |  ||: :|:|||| ||| ||: :|||||: |::|:    | | |:|  |||||:  :|
Db          6 PVTCCYTLTSKKISMQRLMSYRRVTSSKCPKEAVIFKTIAGKEIXAEP--KWVQDSISHL 63

Qy         65 DQISQTTKP 73
              |: :|  ||
Db         64 DKKNQXPKP 72


RESULT 13
A30209
PDGF-inducible JE glycoprotein precursor - mouse
C;Species: Mus musculus (house mouse)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: A30209; A44771; A30861
R;Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
Proc. Natl. Acad. Sci. U.S.A. 85, 3738-3742, 1988
A;Title: Cloning and expression of JE, a gene inducible by platelet-derived growth factc
A;Reference number: A30209; MUID:88234501; PMID:3287374
A;Accession: A30209
A;Molecule type: DNA
A;Residues: 1-148 <ROL>
A;Cross-references: UNIPROT:P10148; GB:M19681; NID:g193486; PIDN:AAA37684.1; PID:g387168
R;Kawahara, R.S.; Deuel, T.F.
J. Biol. Chem. 264, 679-682, 1989
A;Title: Platelet-derived growth factor-inducible gene JE is a member of a family of sma
A;Reference number: A44771; MUID:89093129; PMID:2910858
A;Accession: A44771
A;Molecule type: DNA; mRNA
A;Residues: 1-148 <KA2>
A;Cross-references: GB:J04467; NID:g193488; PIDN:AAA37685.1; PID:g387169
C;Genetics:
A;Gene: JE
A;Introns: 26/1; 65/2
C;Superfamily: macrophage inflammatory protein
C;Keywords: cytokine; glycoprotein
F;126/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match            46.7%;  Score 183;  DB 1;  Length 148;
  Best Local Similarity  49.3%;  Pred. No. 3.5e-13;
  Matches   34;  Conservative   12;  Mismatches   23;  Indels    0;  Gaps    0;

Qy          5 PSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYL 64
              |  ||:  |:| |   ||:||| ||||:||: |::||  |  : :||||||:||   | |
Db         31 PLTCCYSFTSKMIPMSRLESYKRITSSRCPKEAVVFVTKLKREVCADPKKEWVQTYIKNL 90

Qy         65 DQISQTTKP 73
              |: :   ::|
Db         91 DRNQMRSEP 99


RESULT 14
S07723
immediate-early serum-responsive protein JE precursor - rat
N;Alternate names: monocyte chemoattractant protein-1
C;Species: Rattus norvegicus (Norway rat)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
C;Accession: S07723; JN0128
R;Timmers, H.T.M.; Pronk, G.J.; Bos, J.L.; van der Eb, A.J.
Nucleic Acids Res. 18, 23-34, 1990
A;Title: Analysis of the rat JE gene promoter identifies an AP-1 binding site essential
A;Reference number: S07723; MUID:90174947; PMID:2106664
A;Accession: S07723
A;Molecule type: DNA
A;Residues: 1-148 <TIM>
A;Cross-references: UNIPROT:P14844; EMBL:X17053; NID:g55530; PIDN:CAA34901.1; PID:g55531
R;Yoshimura, T.; Takeya, M.; Takahashi, K.
Biochem. Biophys. Res. Commun. 174, 504-509, 1991
A;Title: Molecular cloning of rat monocyte chemoattractant protein-1 (MCP-1) and its exp
A;Reference number: JN0128; MUID:91128376; PMID:1704226
A;Accession: JN0128
A;Molecule type: mRNA
A;Residues: 1-148 <YOS>
A;Cross-references: GB:M57441; NID:g205333; PIDN:AAA63496.1; PID:g205334
A;Experimental source: spleen cells
A;Note: the authors translated the codon GAA for residue 62 as Lys and GCT for residue 6
C;Genetics:
A;Introns: 26/1; 65/2
C;Superfamily: macrophage inflammatory protein
F;1-23/Domain: signal sequence #status predicted <SIG>
F;24-148/Product: immediate-early serum-responsive protein JE #status predicted <MAT>

  Query Match            44.0%;  Score 172.5;  DB 1;  Length 148;
  Best Local Similarity  50.0%;  Pred. No. 5.2e-12;
  Matches   35;  Conservative   10;  Mismatches   22;  Indels    3;  Gaps    1;

Qy          5 PSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYL 64
              |  ||:  | | |    ||::|| ||||:||: |:||  |  : ||||| |:|||   : |
Db         31 PLTCCYSFTGKMIPMSRLENYKRITSSRCPKEAVVFVTKLKREICADPNKEWVQKYIRKL 90

Qy         65 DQ---ISQTT 71
              ||    |:||
Db         91 DQNQVRSETT 100


RESULT 15
I48147
monocyte chemoattractant protein-1 - guinea pig
C;Species: Cavia porcellus (guinea pig)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004
C;Accession: I48147
R;Yoshimura, T.
J. Immunol. 150, 5025-5032, 1993
A;Title: cDNA cloning of guinea pig monocyte chemoattractant protein-1 and expression of
A;Reference number: I48147; MUID:93267104; PMID:8496603
A;Accession: I48147
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-120 <RES>
A;Cross-references: UNIPROT:Q08782; GB:L04985; NID:g349820; PIDN:AAA37047.1; PID:g349821
C;Genetics:
A;Gene: MCP-1
C;Superfamily: macrophage inflammatory protein

  Query Match            43.2%;  Score 169.5;  DB 2;  Length 120;
  Best Local Similarity  42.5%;  Pred. No. 9.1e-12;
  Matches   34;  Conservative   13;  Mismatches   24;  Indels    9;  Gaps    1;

Qy          3 GIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKK 62
              |: :  |    ||:|  :|:| |: |||||||| |::|    :| :|||| :|||||
Db         27 GVNTPTCCYTFNKQIPLKRVKGYERITSSRCPQEAVIFRTLKNKEVCADPTQKWVQDYIA 86

Qy         63 YLDQ---------ISQTTKP 73
              |||          ||:||
Db         87 KLDQRTQQKQNSTAPQTSKP 106


Search completed: August 29, 2005, 20:36:14
Job time : 41 secs
```

GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: August 29, 2005, 20:17:27 ; Search time 173 Seconds
(without alignments)
216.080 Million cell updates/sec

Title: US-10-622-134-2
Perfect score: 392
Sequence: 1 HPGIPSACCFRVTNKKISFQ.....KKWVQDAKKYLDQISQTTKP 73

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	392	100.0	96	1	EOTA_CAVPO	P80325 cavia porce
2	254	64.8	100	1	EOTA_HORSE	Q9ttq4 equus cabal
3	247	63.0	97	1	EOTA_HUMAN	P51671 homo sapien
4	236	60.2	97	1	EOTA_MACMU	Q8mit7 macaca mula
5	236	60.2	97	2	Q8HXZ5	Q8hxz5 macaca mula
6	236	60.2	97	2	Q9TTS6	Q9tts6 bos taurus
7	234.5	59.8	97	1	EOTA_RAT	P97545 rattus norv
8	229.5	58.5	97	1	EOTA_MOUSE	P48298 mus musculu
9	229	58.4	99	2	Q8MKC8	Q8mkc8 equus cabal
10	227	57.9	99	1	SY08_PIG	P49873 sus scrofa
11	224	57.1	101	1	SY02_CANFA	P52203 canis famil
12	220	56.1	99	2	Q8HYQ0	Q8hyq0 macaca mula
13	219	55.9	99	1	SY08_HUMAN	P80075 homo sapien
14	218	55.6	99	1	SY02_MACFA	P61274 macaca fasc
15	218	55.6	99	1	SY02_MACMU	P61275 macaca mula
16	218	55.6	99	2	Q6XVN5	Q6xvn5 macaca neme
17	217	55.4	99	1	SY02_HORSE	Q9ttq3 equus cabal
18	217	55.4	99	1	SY02_PIG	P42831 sus scrofa
19	217	55.4	99	2	Q865F4	Q865f4 macaca neme
20	215	54.8	99	2	Q68AY9	Q68ay9 canis famil
21	214	54.6	99	1	SY02_HUMAN	P13500 homo sapien
22	213	54.3	99	1	SY08_BOVIN	Q09141 bos taurus
23	210.5	53.7	98	1	SY13_HUMAN	Q99616 homo sapien
24	209	53.3	109	2	Q865F3	Q865f3 macaca neme
25	208.5	53.2	98	1	SY13_CANFA	Q68y88 canis famil
26	208	53.1	99	1	SY07_HUMAN	P80098 homo sapien
27	208	53.1	109	2	Q7Z7Q8	Q7z7q8 homo sapien
28	206	52.6	99	1	MCPA_BOVIN	P28291 bos taurus
29	204	52.0	74	1	MCPB_BOVIN	P80343 bos taurus
30	196	50.0	125	1	SY02_RABIT	P28292 oryctolagus
31	194	49.5	104	1	SY12_MOUSE	Q62401 mus musculu
32	191.5	48.9	97	2	Q9Z318	Q9z318 cavia porce
33	187.5	47.8	150	2	Q8CGM5	Q8cgm5 sigmodon hi
34	183	46.7	148	1	SY02_MOUSE	P10148 mus musculu
35	172.5	44.0	148	1	SY02_RAT	P14844 rattus norv
36	172	43.9	62	2	O95690	O95690 homo sapien
37	172	43.9	81	2	Q9TTQ2	Q9ttq2 equus cabal
38	169.5	43.2	120	1	SY02_CAVPO	Q08782 cavia porce
39	163.5	41.7	97	1	SY07_RAT	Q9qxy8 rattus norv
40	162.5	41.5	97	1	SY07_MOUSE	Q03366 mus musculu
41	162	41.3	97	1	SY08_MOUSE	Q9z121 mus musculu
42	154.5	39.4	75	2	Q9TTQ1	Q9ttq1 equus cabal
43	154	39.3	106	2	Q9Z292	Q9z292 cricetulus
44	144.5	36.9	92	1	REG1_BOVIN	P82943 bos taurus
45	141	36.0	119	2	Q8K477	Q8k477 rattus norv

ALIGNMENTS

RESULT 1
EOTA_CAVPO
ID EOTA_CAVPO STANDARD; PRT; 96 AA.
AC P80325;
DT 01-JUN-1994 (Rel. 29, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Eotaxin precursor (Small inducible cytokine A11) (CCL11) (Eosinophil
DE chemotactic protein).
GN Name=CCL11; Synonyms=SCYA11;
OS Cavia porcellus (Guinea pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
OX NCBI_TaxID=10141;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Lung;
RX MEDLINE=95173589; PubMed=7869037;
RA Rothenberg M.E., Luster A.D., Lilly C.M., Drazen J.M., Leder P.;
RT "Constitutive and allergen-induced expression of eotaxin mRNA in the
RT guinea pig lung.";
RL J. Exp. Med. 181:1211-1216(1995).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=95091818; PubMed=7999113;
RA Jose P.J., Adcock I.M., Griffiths-Johnson D.A., Berkman N.,
RA Wells T.C., Williams T.J., Power C.A.;
RT "Eotaxin: cloning of an eosinophil chemoattractant cytokine and
RT increased mRNA expression in allergen-challenged guinea-pig lungs.";
RL Biochem. Biophys. Res. Commun. 205:788-794(1994).
RN [3]
RP SEQUENCE OF 24-96.
RC STRAIN=Hartley; TISSUE=Lung;
RX MEDLINE=94157409; PubMed=7509365;
RA Jose P.J., Griffiths-Johnson D.A., Collins P.D., Walsh D.T.,
RA Moqbel R., Totty N.F., Truong O., Hsuan J.J., Williams T.J.;
RT "Eotaxin: a potent eosinophil chemoattractant cytokine detected in a
RT guinea pig model of allergic airways inflammation.";
RL J. Exp. Med. 179:881-887(1994).
CC -!- FUNCTION: In response to the presence of allergens, this protein
CC directly promotes the accumulation of eosinophils, a prominent
CC feature of allergic inflammatory reactions.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Lung.
CC -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC ---

CC ---

```
DR   EMBL; U18941; AAC52180.1; -.
DR   EMBL; X77603; CAA54698.1; -.
DR   PIR; I48099; I48099.
DR   HSSP; P51671; 1EOT.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Direct protein sequencing; Glycoprotein;
KW   Inflammatory response; Signal.
FT   SIGNAL        1     23
FT   CHAIN        24     96       Eotaxin.
FT   DISULFID     31     56       By similarity.
FT   DISULFID     32     72       By similarity.
FT   CARBOHYD     93     93       O-linked (Potential).
FT   CONFLICT     88     88       D -> G (in Ref. 2).
SQ   SEQUENCE   96 AA;  10753 MW;  62C856645BC6AC99 CRC64;

  Query Match             100.0%;  Score 392;  DB 1;  Length 96;
  Best Local Similarity   100.0%;  Pred. No. 6.5e-37;
  Matches   73;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         24 HPGIPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDA 83

Qy         61 KKYLDQISQTTKP 73
              |||||||||||||
Db         84 KKYLDQISQTTKP 96


RESULT 2
EOTA_HORSE
ID   EOTA_HORSE     STANDARD;      PRT;   100 AA.
AC   Q9TTQ4;
DT   05-JUL-2004 (Rel. 44, Created)
DT   05-JUL-2004 (Rel. 44, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Eotaxin precursor (Small inducible cytokine A11) (CCL11).
GN   Name=CCL11; Synonyms=SCYA11;
OS   Equus caballus (Horse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OX   NCBI_TaxID=9796;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=21061912; PubMed=11044560; DOI=10.1016/S0165-2427(00)00222-1;
RA   Benarafa C., Cunningham F.M., Hamblin A.S., Horohov D.W.,
RA   Collins M.E.;
RT   "Cloning of equine chemokines eotaxin, monocyte chemoattractant
RT   protein (MCP)-1, MCP-2 and MCP-4, mRNA expression in tissues and
RT   induction by IL-4 in dermal fibroblasts.";
RL   Vet. Immunol. Immunopathol. 76:283-298(2000).
CC   -!- FUNCTION: In response to the presence of allergens, this protein
CC       directly promotes the accumulation of eosinophils, a prominent
CC       feature of allergic inflammatory reactions. Binds to CCR3 (By
CC       similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AJ251188; CAB61624.1; -.
DR   HSSP; P51671; 1EOT.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   InterPro; IPR008097; Fractalkine.
DR   Pfam; PF00048; IL8; 1.
DR   PRINTS; PR01721; FRACTALKINE.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Glycoprotein; Inflammatory response; Signal.
FT   SIGNAL        1     23       By similarity.
FT   CHAIN        24    100       Eotaxin.
FT   DISULFID     32     57       By similarity.
FT   DISULFID     33     73       By similarity.
FT   CARBOHYD     94     94       O-linked (GalNAc. . .) (By similarity).
SQ   SEQUENCE   100 AA;  11247 MW;  11F08EC00E75D50B CRC64;

  Query Match             64.8%;  Score 254;  DB 1;  Length 100;
  Best Local Similarity   66.7%;  Pred. No. 3.8e-21;
  Matches   46;  Conservative   11;  Mismatches   12;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              | : ||| | ::|||||||:||: |||||||| |::|: |  | ||||||:|||||| ||
Db         28 ISTVCCFNVASRKISFQRLQSYRKITSSKCPQKAVIFKTKQAKKICADPKQKWVQDAMKY 87

Qy         64 LDQISQTTK 72
              ||: |:|||
Db         88 LDENSRTTK 96


RESULT 3
EOTA_HUMAN
ID   EOTA_HUMAN     STANDARD;      PRT;    97 AA.
AC   P51671; P50877; Q92490; Q92491;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Eotaxin precursor (Small inducible cytokine A11) (CCL11) (Eosinophil
DE   chemotactic protein).
GN   Name=CCL11; Synonyms=SCYA11;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=96181758; PubMed=8597956;
RA   Garcia-Zepeda E.A., Rothenberg M.E., Ownbey T.R., Leder P.,
RA   Luster A.D.;
RT   "Human eotaxin is a specific chemoattractant for eosinophil cells and
RT   provides a new mechanism to explain tissue eosinophilia.";
RL   Nat. Med. 2:449-456(1996).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=96189937; PubMed=8609214;
RA   Ponath P.D., Qin S., Ringler D.J., Clark-Lewis I., Wang J., Kassam N.,
RA   Smith H., Shi X., Gonzalo J.A., Newman W., Gutierrez-Ramos J.C.,
RA   Mackay C.R.;
RT   "Cloning of the human eosinophil chemoattractant, eotaxin. Expression,
RT   receptor binding, and functional properties suggest a mechanism for
RT   the selective recruitment of eosinophils.";
RL   J. Clin. Invest. 97:604-612(1996).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Small intestine;
RX   MEDLINE=96205964; PubMed=8631813; DOI=10.1074/jbc.271.13.7725;
RA   Kitaura M., Nakajima T., Imai T., Harada S., Combadiere C.,
RA   Tiffany H.L., Murphy P.M., Yoshie O.;
RT   "Molecular cloning of human eotaxin, an eosinophil-selective CC
RT   chemokine, and identification of a specific eosinophil eotaxin
RT   receptor, CC chemokine receptor 3.";
RL   J. Biol. Chem. 271:7725-7730(1996).
RN   [4]
RP   SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
RC   TISSUE=Foreskin;
RX   MEDLINE=96374440; PubMed=8780731; DOI=10.1006/bbrc.1996.1292;
RA   Bartels J., Schlueter C., Richter E., Noso N., Kulke R.,
```

```
RA   Christophers E., Schroeder J.-M.;
RT   "Human dermal fibroblasts express eotaxin: molecular cloning, mRNA
RT   expression, and identification of eotaxin sequence variants.";
RL   Biochem. Biophys. Res. Commun. 225:1045-1051(1996).
RN   [5]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Placenta;
RX   MEDLINE=97312708; PubMed=9169149; DOI=10.1006/geno.1997.4656;
RA   Garcia-Zepeda E.A., Rothenberg M.E., Weremowicz S., Sarafi M.N.,
RA   Morton C.C., Luster A.D.;
RT   "Genomic organization, complete sequence, and chromosomal location of
RT   the gene for human eotaxin (SCYA11), an eosinophil-specific CC
RT   chemokine.";
RL   Genomics 41:471-476(1997).
RN   [6]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Lung;
RX   MEDLINE=97445071; PubMed=9299399; DOI=10.1006/bbrc.1997.7169;
RA   Hein H., Schlueter C., Kulke R., Christophers E., Schroeder J.-M.,
RA   Bartels J.;
RT   "Genomic organization, sequence, and transcriptional regulation of the
RT   human eotaxin gene.";
RL   Biochem. Biophys. Res. Commun. 237:537-542(1997).
RN   [7]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Lung;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [8]
RP   CARBOHYDRATE-LINKAGE SITE.
RC   TISSUE=Blood;
RX   MEDLINE=98237580; PubMed=9578468;
RA   Noso N., Bartels J., Mallet A.I., Mochizuki M., Christophers E.,
RA   Schroeder J.-M.;
RT   "Delayed production of biologically active O-glycosylated forms of
RT   human eotaxin by tumor-necrosis-factor-alpha-stimulated dermal
RT   fibroblasts.";
RL   Eur. J. Biochem. 253:114-122(1998).
RN   [9]
RP   STRUCTURE BY NMR.
RX   MEDLINE=98380469; PubMed=9712872; DOI=10.1074/jbc.273.35.22471;
RA   Crump M.P., Rajarathnam K., Kim K.S., Clark-Lewis I., Sykes B.D.;
RT   "Solution structure of eotaxin, a chemokine that selectively recruits
RT   eosinophils in allergic inflammation.";
RL   J. Biol. Chem. 273:22471-22479(1998).
CC   -!- FUNCTION: In response to the presence of allergens, this protein
CC       directly promotes the accumulation of eosinophils, a prominent
CC       feature of allergic inflammatory reactions. Binds to CCR3.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- INDUCTION: By TNF-alpha, interleukin-1 alpha and interferon gamma.
CC   -!- PTM: O-linked glycan consists of a Gal-GalNAc disaccharide which
CC       is mofified with up to 2 sialic acid residues.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   -!- DATABASE: NAME=R&D Systems' cytokine source book: SCYA11;
CC       WWW="http://www.rndsystems.com/asp/g_sitebuilder.asp?bodyId=196".
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U46573; AAA98957.1; -.
DR   EMBL; U34780; AAC50369.1; -.
DR   EMBL; D49372; BAA08370.1; -.
DR   EMBL; Z69291; CAA93258.1; -.
DR   EMBL; Z75668; CAA99997.1; -.
DR   EMBL; Z75669; CAA99998.1; -.
DR   EMBL; U46572; AAC51297.1; -.
DR   EMBL; Z92709; CAB07027.1; -.
DR   EMBL; BC017850; AAH17850.1; -.
DR   PIR; JC4912; JC4912.
DR   PDB; 1EOT; NMR; @=24-97.
DR   PDB; 2EOT; NMR; @=24-97.
DR   Genew; HGNC:10610; CCL11.
DR   H-InvDB; HIX0013715; -.
DR   MIM; 601156; -.
DR   GO; GO:0008009; F:chemokine activity; TAS.
DR   GO; GO:0006874; P:calcium ion homeostasis; TAS.
DR   GO; GO:0007155; P:cell adhesion; TAS.
DR   GO; GO:0006935; P:chemotaxis; TAS.
DR   GO; GO:0006954; P:inflammatory response; TAS.
DR   GO; GO:0006468; P:protein amino acid phosphorylation; TAS.
DR   GO; GO:0009314; P:response to radiation; TAS.
DR   GO; GO:0009615; P:response to virus; TAS.
DR   GO; GO:0007165; P:signal transduction; TAS.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   3D-structure; Chemotaxis; Cytokine; Direct protein sequencing;
KW   Glycoprotein; Inflammatory response; Polymorphism; Signal.
FT   SIGNAL       1     23
FT   CHAIN       24     97       Eotaxin.
FT   DISULFID    32     57
FT   DISULFID    33     73
FT   CARBOHYD    94     94       O-linked (GalNAc. . .).
FT   VARIANT      7      7       L -> P (in clone 34).
FT                               /FTId=VAR_001634.
FT   VARIANT     23     23       A -> T (in clone 53; dbSNP:3744508).
FT                               /FTId=VAR_001635.
FT   VARIANT     51     51       R -> S (in clone 34).
FT                               /FTId=VAR_001636.
FT   VARIANT     79     79       K -> R (in clone 53).
FT                               /FTId=VAR_001637.
FT   TURN        44     45
FT   STRAND      46     52
FT   STRAND      61     66
FT   TURN        67     68
FT   STRAND      71     74
FT   TURN        76     77
FT   HELIX       79     91
SQ   SEQUENCE   97 AA;  10732 MW;  B433C30FDA4C71A7 CRC64;

  Query Match             63.0%;  Score 247;  DB 1;  Length 97;
  Best Local Similarity   62.9%;  Pred. No. 2.3e-20;
  Matches   44;  Conservative   10;  Mismatches   16;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              :|: ||| : |:||  |||:||: ||| |||| |::|: |  | ||||||||||||: ||
Db         28 VPTTCCFNLANRKIPLQRLESYRRITSGKCPQKAVIFKTKLAKDICADPKKKWVQDSMKY 87

Qy         64 LDQISQTTKP 73
                ||| | | ||
Db         88 LDQKSPTPKP 97
```

```
RESULT 4
EOTA_MACMU
ID   EOTA_MACMU     STANDARD;      PRT;    97 AA.
AC   Q8MIT7;
DT   05-JUL-2004 (Rel. 44, Created)
DT   05-JUL-2004 (Rel. 44, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Eotaxin precursor (Small inducible cytokine A11) (CCL11).
GN   Name=CCL11; Synonyms=SCYA11;
OS   Macaca mulatta (Rhesus macaque).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Macaca.
OX   NCBI_TaxID=9544;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Zhang L., Soares M.P., Guan Y., Sirotina-Meisher A.,
RA   Matheravidathu S., Iliff S.A., Mudgett J.S., Springer M.S.,
RA   Daugherty B.L.;
RT   "Molecular cloning of eotaxin/CCL11 and CCR3 from rhesus monkey.
RT   Functional expression and characterization of rhesus monkey CCR3 in
RT   murine L1-2 cells; generation of antibodies against rhesus CCR3.";
RL   Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: In response to the presence of allergens, this protein
CC       directly promotes the accumulation of eosinophils, a prominent
CC       feature of allergic inflammatory reactions. Binds to CCR3 (By
CC       similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AY049019; AAL13086.1; -.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Glycoprotein; Inflammatory response; Signal.
FT   SIGNAL        1     23       By similarity.
FT   CHAIN        24     97       Eotaxin.
FT   DISULFID     32     57       By similarity.
FT   DISULFID     33     73       By similarity.
FT   CARBOHYD     94     94       O-linked (GalNAc. . .) (By similarity).
SQ   SEQUENCE   97 AA;  10855 MW;  9BCA0FD6D95B02DD CRC64;

  Query Match             60.2%;  Score 236;  DB 1;  Length 97;
  Best Local Similarity   61.4%;  Pred. No. 4.1e-19;
  Matches   43;  Conservative   10;  Mismatches   17;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              : : ||| :|||||  |||:||: | | |||| |::|: |  | ||||||||||||: ||
Db         28 VATTCCFTLTNKKIPLQRLESYRRIISGKCPQKAVIFKTKLAKDICADPKKKWVQDSMKY 87

Qy         64 LDQISQTTKP 73
              ||: | | ||
Db         88 LDRKSPTPKP 97


RESULT 5
Q8HXZ5
ID   Q8HXZ5      PRELIMINARY;      PRT;    97 AA.
AC   Q8HXZ5;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Chemokine CCL11/EOTAXIN.
OS   Macaca mulatta (Rhesus macaque).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Macaca.
OX   NCBI_TaxID=9544;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22123042; PubMed=12126650; DOI=10.1006/cyto.2002.0875;
RA   Basu S., Schaefer T.M., Ghosh M., Fuller C.L., Reinhart T.A.;
RT   "Molecular cloning and sequencing of 25 different rhesus macaque
RT   chemokine cDNAs reveals evolutionary conservation among C, CC, CXC,
RT   AND CX3C families of chemokines.";
RL   Cytokine 18:140-148(2002).
DR   EMBL; AF449270; AAN76074.1; -.
DR   HSSP; P51671; 1EOT.
DR   GO; GO:0005576; C:extracellular; IEA.
DR   GO; GO:0008009; F:chemokine activity; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ   SEQUENCE   97 AA;  10795 MW;  ED0CD4B2880A47C9 CRC64;

  Query Match             60.2%;  Score 236;  DB 2;  Length 97;
  Best Local Similarity   61.4%;  Pred. No. 4.1e-19;
  Matches   43;  Conservative   10;  Mismatches   17;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              : : ||| :|||||  |||:||: | | |||| |::|: |  | ||||||||||||: ||
Db         28 VATTCCFTLTNKKIPLQRLESYRRIISGKCPQKAVIFKTKLAKDICADPKKKWVQDSMKY 87

Qy         64 LDQISQTTKP 73
              ||: | | ||
Db         88 LDRKSPTPKP 97


RESULT 6
Q9TTS6
ID   Q9TTS6      PRELIMINARY;      PRT;    97 AA.
AC   Q9TTS6;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Eotaxin.
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Vogel B., Klinder A., Aust G.;
RL   Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AJ132003; CAB61617.1; -.
DR   HSSP; P51671; 1EOT.
DR   GO; GO:0005576; C:extracellular; IEA.
DR   GO; GO:0008009; F:chemokine activity; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
SQ   SEQUENCE   97 AA;  10965 MW;  9E65F23E1DDEB743 CRC64;

  Query Match             60.2%;  Score 236;  DB 2;  Length 97;
  Best Local Similarity   60.9%;  Pred. No. 4.1e-19;
  Matches   42;  Conservative   13;  Mismatches   14;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              ||: ||| :: |||| |||:||: |||||||| |::|  | :| || ||::||||:| :|
```

```
Db         28 IPTICCFNMSKKKISIQRLQSYRKITSSKCPQKAVIFNTKQNKKICVDPQEKWVQNAMEY 87

Qy         64 LDQISQTTK 72
              |:| ||| |
Db         88 LNQKSQTLK 96


RESULT 7
EOTA_RAT
ID   EOTA_RAT       STANDARD;      PRT;    97 AA.
AC   P97545; O08780;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Eotaxin precursor (Small inducible cytokine A11) (CCL11) (Eosinophil
DE   chemotactic protein).
GN   Name=Ccl11; Synonyms=Scya11;
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98060832; PubMed=9396866; DOI=10.1007/s002510050345;
RA   Williams C.M., Newton D.J., Wilson S.A., Williams T.J., Coleman J.W.,
RA   Flanagan B.F.;
RT   "Conserved structure and tissue expression of rat eotaxin.";
RL   Immunogenetics 47:178-180(1998).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Lung;
RX   MEDLINE=98120437; PubMed=9458816;
RA   Ishi Y., Shirato M., Nomura A., Sakamoto T., Uchida Y., Ohtsuka M.,
RA   Sagai M., Hasegawa S.;
RT   "Cloning of rat eotaxin: ozone inhalation increases mRNA and protein
RT   expression in lungs of brown Norway rats.";
RL   Am. J. Physiol. 274:L171-L176(1998).
CC   -!- FUNCTION: In response to the presence of allergens, this protein
CC       directly promotes the accumulation of eosinophils, a prominent
CC       feature of allergic inflammatory reactions (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; Y08358; CAA69645.1; -.
DR   EMBL; U96637; AAB65775.1; -.
DR   HSSP; P51671; 1EOT.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Glycoprotein; Inflammatory response; Signal.
FT   SIGNAL       1     23       Potential.
FT   CHAIN       24     97       Eotaxin.
FT   DISULFID    32     57       By similarity.
FT   DISULFID    33     73       By similarity.
FT   CARBOHYD    94     94       O-linked (Potential).
SQ   SEQUENCE   97 AA;  10851 MW;  77375B4A038B3F6B CRC64;

  Query Match             59.8%;  Score 234.5;  DB 1;  Length 97;
  Best Local Similarity   63.5%;  Pred. No. 6.1e-19;
  Matches   47;  Conservative    9;  Mismatches   17;  Indels    1;  Gaps    1;

Qy          1 HPG-IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQD 59
              ||| ||::||| :|:|||    ||||| ||:::|   ||||: |  | ||||||||||||
Db         24 HPGSIPTSCCFTMTSKKIPNTLLKSYKRITNNRCTLKAIVFKTKLGKEICADPKKKWVQD 83

Qy         60 AKKYLDQISQTTKP 73
              | |:|||  || ||
Db         84 ATKHLDQKLQTPKP 97


RESULT 8
EOTA_MOUSE
ID   EOTA_MOUSE     STANDARD;      PRT;    97 AA.
AC   P48298;
DT   01-FEB-1996 (Rel. 33, Created)
DT   01-FEB-1996 (Rel. 33, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Eotaxin precursor (Small inducible cytokine A11) (CCL11) (Eosinophil
DE   chemotactic protein).
GN   Name=Ccl11; Synonyms=Scya11;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Lung;
RX   MEDLINE=96004658; PubMed=7568052;
RA   Rothenberg M.E., Luster A.D., Leder P.;
RT   "Murine eotaxin: an eosinophil chemoattractant inducible in
RT   endothelial cells and in interleukin 4-induced tumor suppression.";
RL   Proc. Natl. Acad. Sci. U.S.A. 92:8960-8964(1995).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Lung;
RX   MEDLINE=96158746; PubMed=8574847; DOI=10.1016/S1074-7613(00)80293-9;
RA   Gonzalo J.-A., Jia G.-Q., Aguirre V., Friend D., Coyle A.J.,
RA   Jenkins N.A., Lin G.-S., Katz H., Lichtman A., Copeland N.G., Kopf M.,
RA   Gutierrez-Ramos J.-C.;
RT   "Mouse eotaxin expression parallels eosinophil accumulation during
RT   lung allergic inflammation but it is not restricted to a Th2-type
RT   response.";
RL   Immunity 4:1-14(1996).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   STRAIN=B10.S/J, BALB/c, DBA/2J, NOD/LtJ, and SJL/J; TISSUE=Spleen;
RX   MEDLINE=99370037; PubMed=10438970;
RA   Teuscher C., Butterfield R.J., Ma R.Z., Zachary J.F., Doerge R.W.,
RA   Blankenhorn E.P.;
RT   "Sequence polymorphisms in the chemokines Scya1 (TCA-3), Scya2
RT   (monocyte chemoattractant protein (MCP)-1), and Scya12 (MCP-5) are
RT   candidates for eae7, a locus controlling susceptibility to monophasic
RT   remitting/nonrelapsing experimental allergic encephalomyelitis.";
RL   J. Immunol. 163:2262-2266(1999).
RN   [4]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Tongue;
RX   MEDLINE=22354683; PubMed=12466851; DOI=10.1038/nature01266;
RA   Okazaki Y., Furuno M., Kasukawa T., Adachi J., Bono H., Kondo S.,
RA   Nikaido I., Osato N., Saito R., Suzuki H., Yamanaka I., Kiyosawa H.,
RA   Yagi K., Tomaru Y., Hasegawa Y., Nogami A., Schonbach C., Gojobori T.,
RA   Baldarelli R., Hill D.P., Bult C., Hume D.A., Quackenbush J.,
RA   Schriml L.M., Kanapin A., Matsuda H., Batalov S., Beisel K.W.,
RA   Blake J.A., Bradt D., Brusic V., Chothia C., Corbani L.E., Cousins S.,
RA   Dalla E., Dragani T.A., Fletcher C.F., Forrest A., Frazer K.S.,
RA   Gaasterland T., Gariboldi M., Gissi C., Godzik A., Gough J.,
RA   Grimmond S., Gustincich S., Hirokawa N., Jackson I.J., Jarvis E.D.,
RA   Kanai A., Kawaji H., Kawasawa Y., Kedzierski R.M., King B.L.,
RA   Konagaya A., Kurochkin I.V., Lee Y., Lenhard B., Lyons P.A.,
RA   Maglott D.R., Maltais L., Marchionni L., McKenzie L., Miki H.,
RA   Nagashima T., Numata K., Okido T., Pavan W.J., Pertea G., Pesole G.,
RA   Petrovsky N., Pillai R., Pontius J.U., Qi D., Ramachandran S.,
RA   Ravasi T., Reed J.C., Reed D.J., Reid J., Ring B.Z., Ringwald M.,
RA   Sandelin A., Schneider C., Semple C.A., Setou M., Shimada K.,
RA   Sultana R., Takenaka Y., Taylor M.S., Teasdale R.D., Tomita M.,
RA   Verardo R., Wagner L., Wahlestedt C., Wang Y., Watanabe Y., Wells C.,
RA   Wilming L.G., Wynshaw-Boris A., Yanagisawa M., Yang I., Yang L.,
```

```
RA   Yuan Z., Zavolan M., Zhu Y., Zimmer A., Carninci P., Hayatsu N.,
RA   Hirozane-Kishikawa T., Konno H., Nakamura M., Sakazume N., Sato K.,
RA   Shiraki T., Waki K., Kawai J., Aizawa K., Arakawa T., Fukuda S.,
RA   Hara A., Hashizume W., Imotani K., Ishii Y., Itoh M., Kagawa I.,
RA   Miyazaki A., Sakai K., Sasaki D., Shibata K., Shinagawa A.,
RA   Yasunishi A., Yoshino M., Waterston R., Lander E.S., Rogers J.,
RA   Birney E., Hayashizaki Y.;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
RN   [5]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Mammary gland;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [6]
RP   SEQUENCE OF 1-14 FROM N.A.
RX   MEDLINE=97312708; PubMed=9169149; DOI=10.1006/geno.1997.4656;
RA   Garcia-Zepeda E.A., Rothenberg M.E., Weremowicz S., Sarafi M.N.,
RA   Morton C.C., Luster A.D.;
RT   "Genomic organization, complete sequence, and chromosomal location of
RT   the gene for human eotaxin (SCYA11), an eosinophil-specific CC
RT   chemokine.";
RL   Genomics 41:471-476(1997).
CC   -!- FUNCTION: In response to the presence of allergens, this protein
CC       directly promotes the accumulation of eosinophils (a prominent
CC       feature of allergic inflammatory reactions), but not lymphocytes,
CC       macrophages or neutrophils.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Expressed constitutively in the thymus.
CC       Expression inducible in the lung (type I alveolar epithelial
CC       cells), intestine, heart, spleen, kidney.
CC   -!- INDUCTION: By interferon gamma and lipopolysaccharides (LPS).
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U26426; AAC52256.1; -.
DR   EMBL; U40672; AAA99776.1; -.
DR   EMBL; AF128205; AAF22546.1; -.
DR   EMBL; AF128206; AAF22547.1; -.
DR   EMBL; AF128207; AAF22548.1; -.
DR   EMBL; AF128208; AAF22549.1; -.
DR   EMBL; AF128209; AAF22550.1; -.
DR   EMBL; AK010146; BAB26731.1; -.
DR   EMBL; BC027521; AAH27521.1; -.
DR   EMBL; U77462; AAC53321.1; -.
DR   HSSP; P51671; 1EOT.
DR   MGD; MGI:103576; Ccl11.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Glycoprotein; Inflammatory response; Signal.
FT   SIGNAL        1     23       Potential.
FT   CHAIN        24     97       Eotaxin.
FT   DISULFID     32     57       By similarity.
FT   DISULFID     33     73       By similarity.
FT   CARBOHYD     94     94       O-linked (GalNAc. . .) (By similarity).
SQ   SEQUENCE   97 AA;  10893 MW;  36C9812107FC6CA7 CRC64;

  Query Match             58.5%;  Score 229.5;  DB 1;  Length 97;
  Best Local Similarity   62.2%;  Pred. No. 2.3e-18;
  Matches   46;  Conservative   10;  Mismatches   17;  Indels    1;  Gaps    1;

Qy          1 HPG-IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQD 59
              ||| ||::||| :|:|||    ||||| ||:::|   ||||: :  | ||||||||||
Db         24 HPGSIPTSCCFIMTSKKIPNTLLKSYKRITNNRCTLKAIVFKTRLGKEICADPKKKWVQD 83

Qy         60 AKKYLDQISQTTKP 73
              | |:|||  || ||
Db         84 ATKHLDQKLQTPKP 97


RESULT 9
Q8MKC8
ID   Q8MKC8      PRELIMINARY;      PRT;    99 AA.
AC   Q8MKC8;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Mcp-2.
OS   Equus caballus (Horse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OX   NCBI_TaxID=9796;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Takafuji V.A., Sharova L.V., Crisman M.V., Howard R.D.;
RL   Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF506972; AAM34214.1; -.
DR   HSSP; P80075; 1ESR.
DR   GO; GO:0005576; C:extracellular; IEA.
DR   GO; GO:0008009; F:chemokine activity; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
SQ   SEQUENCE   99 AA;  11028 MW;  94F5D8E540889228 CRC64;

  Query Match             58.4%;  Score 229;  DB 2;  Length 99;
  Best Local Similarity   61.4%;  Pred. No. 2.6e-18;
  Matches   43;  Conservative    8;  Mismatches   19;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              ||  ||| |  ||:  ||::||  ||||:| | |::|: | || |||||||:|||||  |
Db         30 IPVTCCFGVDKKKVPIQRVESYTRITSSQCSQEAVIFKTKVDKEICADPKQKWVQDTMKR 89

Qy         64 LDQISQTTKP 73
              ||| ||| ||
Db         90 LDQRSQTPKP 99


RESULT 10
SY08_PIG
ID   SY08_PIG       STANDARD;      PRT;    99 AA.
AC   P49873;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Small inducible cytokine A8 precursor (CCL8) (Monocyte chemotactic
```

```
DE   protein 2) (MCP-2) (Monocyte chemoattractant protein 2).
GN   Name=CCL8; Synonyms=MCP2, SCYA8;
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX   NCBI_TaxID=9823;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95091716; PubMed=7999015;
RA   Hosang K.K., Knoke I.I., Klaudiny J.J., Wempe F.F., Wuttke W.W.,
RA   Scheit K.K.;
RT   "Porcine luteal cells express monocyte chemoattractant protein-2 (MCP-
RT   2): analysis by cDNA cloning and northern analysis.";
RL   Biochem. Biophys. Res. Commun. 205:148-153(1994).
CC   -!- FUNCTION: Chemotactic factor that attracts monocytes. This protein
CC       can bind heparin.
CC   -!- SUBUNIT: Monomer or homodimer; in equilibrium (By similarity).
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; Z48480; CAA88371.1; -.
DR   PIR; JC2417; JC2417.
DR   HSSP; P80075; 1ESR.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Heparin-binding; Inflammatory response;
KW   Pyrrolidone carboxylic acid; Signal.
FT   SIGNAL       1     23       By similarity.
FT   CHAIN       24     99       Small inducible cytokine A8.
FT   MOD_RES     24     24       Pyrrolidone carboxylic acid (By
FT                               similarity).
FT   DISULFID    34     59       By similarity.
FT   DISULFID    35     75       By similarity.
SQ   SEQUENCE   99 AA;  10903 MW;  D3DAA0F7A964CDB1 CRC64;

  Query Match             57.9%;  Score 227;  DB 1;  Length 99;
  Best Local Similarity   57.1%;  Pred. No. 4.5e-18;
  Matches   40;  Conservative   14;  Mismatches   16;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              ||  ||| : | || |::|:||  ||:|:||| |::|: | || :||||::||||:: |
Db         30 IPITCCFGLVNGKIPFKKLESYTRITNSQCPQEAVIFKTKADKEVCADPQQKWVQNSMKL 89

Qy         64 LDQISQTTKP 73
              ||| ||| ||
Db         90 LDQKSQTPKP 99


RESULT 11
SY02_CANFA
ID   SY02_CANFA     STANDARD;      PRT;   101 AA.
AC   P52203;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Small inducible cytokine A2 precursor (CCL2) (Monocyte chemotactic
DE   protein 1) (MCP-1) (Monocyte chemoattractant protein-1).
GN   Name=CCL2; Synonyms=MCP1, SCYA2;
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Jugular vein endothelial;
RX   MEDLINE=97176620; PubMed=9024159;
RA   Kumar A.G., Ballantyne C.M., Michael L.H., Kukielka G.L., Youker K.A.,
RA   Lindsey M.L., Hawkins H.K., Birdsall H.H., Mackay C.R., Larosa G.J.,
RA   Rossen R.D., Smith C.W., Entman M.L.;
RT   "Induction of monocyte chemoattractant protein-1 in the small veins of
RT   the ischemic and reperfused canine myocardium.";
RL   Circulation 95:693-700(1997).
CC   -!- FUNCTION: Chemotactic factor that attracts monocytes, but not
CC       neutrophils. Important factor in the course of the inflammatory
CC       reaction to reperfusion of the previously ischemic myocardium. May
CC       play a significant role in monocyte trafficking into the
CC       reperfused myocardium.
CC   -!- SUBUNIT: Monomer or homodimer; in equilibrium (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Endothelium of small veins and intrafascicular
CC       veins, and infiltrating leukocytes.
CC   -!- INDUCTION: By TNF-alpha.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U29653; AAA84911.1; -.
DR   HSSP; P13500; 1DOM.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   InterPro; IPR008097; Fractalkine.
DR   Pfam; PF00048; IL8; 1.
DR   PRINTS; PR01721; FRACTALKINE.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Inflammatory response;
KW   Pyrrolidone carboxylic acid; Signal.
FT   SIGNAL       1     23       By similarity.
FT   CHAIN       24    101       Small inducible cytokine A2.
FT   MOD_RES     24     24       Pyrrolidone carboxylic acid (By
FT                               similarity).
FT   DISULFID    34     59       By similarity.
FT   DISULFID    35     75       By similarity.
SQ   SEQUENCE  101 AA;  11121 MW;  CDD7E2B1901A7267 CRC64;

  Query Match             57.1%;  Score 224;  DB 1;  Length 101;
  Best Local Similarity   59.2%;  Pred. No. 1e-17;
  Matches   42;  Conservative   12;  Mismatches   15;  Indels    2;  Gaps    1;

Qy          5 PSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYL 64
              |  ||: :|||||| ||| ||| :|||||: |::|:   :| ||||||:|||||:  :|
Db         31 PVTCCYTLTNKKISIQRLASYKRVTSSKCPKEAVIFKTVLNKEICADPKQKWVQDSMAHL 90

Qy         65 DQIS--QTTKP 73
              |: |  || ||
Db         91 DKKSQTQTAKP 101


RESULT 12
Q8HYQ0
ID   Q8HYQ0      PRELIMINARY;      PRT;    99 AA.
AC   Q8HYQ0;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Chemokine CCL8/MCP-2.
OS   Macaca mulatta (Rhesus macaque).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Macaca.
OX   NCBI_TaxID=9544;
```

```
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22123042; PubMed=12126650; DOI=10.1006/cyto.2002.0875;
RA   Basu S., Schaefer T.M., Ghosh M., Fuller C.L., Reinhart T.A.;
RT   "Molecular cloning and sequencing of 25 different rhesus macaque
RT   chemokine cDNAs reveals evolutionary conservation among C, CC, CXC,
RT   AND CX3C families of chemokines.";
RL   Cytokine 18:140-148(2002).
DR   EMBL; AF449269; AAN76073.1; -.
DR   HSSP; P80075; 1ESR.
DR   GO; GO:0005576; C:extracellular; IEA.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0008009; F:chemokine activity; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   InterPro; IPR008097; Fractalkine.
DR   Pfam; PF00048; IL8; 1.
DR   PRINTS; PR01721; FRACTALKINE.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SQ   SEQUENCE   99 AA;  11263 MW;  9D6797974A88BF7F CRC64;

  Query Match             56.1%;  Score 220;  DB 2;  Length 99;
  Best Local Similarity   54.3%;  Pred. No. 2.8e-17;
  Matches   38;  Conservative   15;  Mismatches   17;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              ||  ||| | |:||  |||:||  ||:::||: |::|: |  | :|||||::||:|: |:
Db         30 IPITCCFNVINRKIPIQRLQSYTRITNTQCPKEAVIFKTKWGKEVCADPKERWVRDSMKH 89

Qy         64 LDQISQTTKP 73
                ||||  |  ||
Db         90 LDQIFQNLKP 99


RESULT 13
SY08_HUMAN
ID   SY08_HUMAN     STANDARD;      PRT;    99 AA.
AC   P80075; P78388;
DT   01-DEC-1992 (Rel. 24, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Small inducible cytokine A8 precursor (CCL8) (Monocyte chemotactic
DE   protein 2) (MCP-2) (Monocyte chemoattractant protein 2) (HC14)
DE   [Contains: MCP-2(6-76)].
GN   Name=CCL8; Synonyms=MCP2, SCYA10, SCYA8;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A., AND VARIANT GLN-69.
RX   MEDLINE=97237052; PubMed=9119400; DOI=10.1006/geno.1996.4594;
RA   van Coillie E., Fiten P., Nomiyama H., Sakaki Y., Miura R., Yoshie O.,
RA   van Damme J., Opdenakker G.;
RT   "The human MCP-2 gene (SCYA8): cloning, sequence analysis, tissue
RT   expression, and assignment to the CC chemokine gene contig on
RT   chromosome 17q11.2.";
RL   Genomics 40:323-331(1997).
RN   [2]
RP   SEQUENCE FROM N.A., AND VARIANT GLN-69.
RC   TISSUE=Bone marrow;
RX   MEDLINE=97224420; PubMed=9070881; DOI=10.1006/bbrc.1997.6177;
RA   van Coillie E., Froyen F., Nomiyama H., Miura R., Fiten P.,
RA   van Aelst I., van Damme J., Opdenakker G.;
RT   "Human monocyte chemotactic protein-2: cDNA cloning and regulated
RT   expression of mRNA in mesenchymal cells.";
RL   Biochem. Biophys. Res. Commun. 231:726-730(1997).
RN   [3]
RP   SEQUENCE OF 23-99 FROM N.A.
RX   MEDLINE=91207938; PubMed=2518726;
RA   Chang H.C., Hsu F., Freeman G.J., Griffin J.D., Reinherz E.L.;
RT   "Cloning and expression of a gamma-interferon-inducible gene in
RT   monocytes: a new member of a cytokine gene family.";
RL   Int. Immunol. 1:388-399(1989).
RN   [4]
RP   SEQUENCE OF 26-99.
RC   TISSUE=Osteosarcoma;
RX   MEDLINE=92308855; PubMed=1613466;
RA   van Damme J., Proost P., Lenaerts J.-P., Opdenakker G.;
RT   "Structural and functional identification of two human, tumor-derived
RT   monocyte chemotactic proteins (MCP-2 and MCP-3) belonging to the
RT   chemokine family.";
RL   J. Exp. Med. 176:59-65(1992).
RN   [5]
RP   SUBUNIT.
RX   MEDLINE=97053697; PubMed=8898111; DOI=10.1016/0014-5793(96)01024-1;
RA   Kim K.-S., Rajarathnam K., Clark-Lewis I., Sykes B.D.;
RT   "Structural characterization of a monomeric chemokine: monocyte
RT   chemoattractant protein-3.";
RL   FEBS Lett. 395:277-282(1996).
RN   [6]
RP   IDENTIFICATION OF MCP-2(6-76), MASS SPECTROMETRY, N-TERMINAL
RP   PROCESSING, AND FUNCTION.
RX   PubMed=9558113;
RA   Proost P., Struyf S., Couvreur M., Lenaerts J.-P., Conings R.,
RA   Menten P., Verhaert P., Wuyts A., Van Damme J.;
RT   "Posttranslational modifications affect the activity of the human
RT   monocyte chemotactic proteins MCP-1 and MCP-2: identification of MCP-
RT   2(6-76) as a natural chemokine inhibitor.";
RL   J. Immunol. 160:4034-4041(1998).
CC   -!- FUNCTION: Chemotactic factor that attracts monocytes, lymphocytes,
CC       basophils and eosinophils. May play a role in neoplasia and
CC       inflammatory host responses. This protein can bind heparin. The
CC       processed form MCP-2(6-76) does not show monocyte chemotactic
CC       activity, but inhibits the chemotactic effect most predominantly
CC       of CCL7, and also of CCL2 and CCL5 and CCL8.
CC   -!- SUBUNIT: Monomer or homodimer; in equilibrium.
CC   -!- TISSUE SPECIFICITY: Highest expression found in the small
CC       intestine and peripheral blood cells. Intermediate levels seen in
CC       the heart, placenta, lung, skeletal muscle, thymus, colon, ovary,
CC       spinal cord and pancreas. Low levels seen in the brain, liver,
CC       spleen and prostate.
CC   -!- INDUCTION: By interferon gamma, mitogens and interleukin-1.
CC   -!- PTM: N-terminal processed form MCP-2(6-76) is produced by
CC       proteolytic cleavage after secretion from peripheral blood
CC       monocytes.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X99886; CAA68168.1; ALT_INIT.
DR   EMBL; Y10802; CAA71760.1; -.
DR   EMBL; Y16645; CAA76341.1; -.
DR   PIR; JC5295; JC5295.
DR   PDB; 1ESR; X-ray; A=24-99.
DR   Genew; HGNC:10635; CCL8.
DR   MIM; 602283; -.
DR   GO; GO:0008009; F:chemokine activity; TAS.
DR   GO; GO:0004871; F:signal transducer activity; TAS.
DR   GO; GO:0006816; P:calcium ion transport; TAS.
DR   GO; GO:0007267; P:cell-cell signaling; TAS.
DR   GO; GO:0006935; P:chemotaxis; TAS.
DR   GO; GO:0006887; P:exocytosis; TAS.
DR   GO; GO:0009615; P:response to virus; TAS.
DR   GO; GO:0007165; P:signal transduction; TAS.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   Pfam; PF00048; IL8; 1.
```

```
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   3D-structure; Chemotaxis; Cytokine; Direct protein sequencing;
KW   Heparin-binding; Inflammatory response; Polymorphism;
KW   Pyrrolidone carboxylic acid; Signal.
FT   SIGNAL        1     23       Probable.
FT   CHAIN        24     99       Small inducible cytokine A8.
FT   CHAIN        29     99       MCP-2(6-76).
FT   MOD_RES      24     24       Pyrrolidone carboxylic acid.
FT   DISULFID     34     59       By similarity.
FT   DISULFID     35     75       By similarity.
FT   VARIANT      69     69       K -> Q (in dbSNP:3138038).
FT                                /FTId=VAR_001633.
FT   TURN         26     29
FT   HELIX        45     47
FT   STRAND       48     53
FT   TURN         57     58
FT   STRAND       64     68
FT   TURN         69     70
FT   STRAND       73     76
FT   TURN         78     79
FT   HELIX        81     96
SQ   SEQUENCE   99 AA;  11246 MW;  9D67976BB9422F2A CRC64;

  Query Match             55.9%;  Score 219;  DB 1;  Length 99;
  Best Local Similarity   54.3%;  Pred. No. 3.7e-17;
  Matches   38;  Conservative   14;  Mismatches   18;  Indels    0;  Gaps    0;

Qy          4 IPSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKY 63
              ||  ||| | |:||  |||:||  ||: :||: |::|: |  | :|||||::||:|: |:
Db         30 IPITCCFNVINRKIPIQRLESYTRITNIQCPKEAVIFKTKRGKEVCADPKERWVRDSMKH 89

Qy         64 LDQISQTTKP 73
              |||| |  ||
Db         90 LDQIFQNLKP 99


RESULT 14
SY02_MACFA
ID   SY02_MACFA     STANDARD;      PRT;    99 AA.
AC   P61274; Q9MYN4;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Small inducible cytokine A2 precursor (CCL2) (Monocyte chemotactic
DE   protein 1) (MCP-1) (Monocyte chemoattractant protein-1).
GN   Name=CCL2; Synonyms=MCP1, SCYA2;
OS   Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Macaca.
OX   NCBI_TaxID=9541;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Studer C., Urfer R.;
RT   "Cloning and expression of cynomolgus monkey chemoattractant protein-
RT   1.";
RL   Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Chemotactic factor that attracts monocytes and basophils
CC       but not neutrophils or eosinophils. Binds to CCR2 and CCR4 (By
CC       similarity).
CC   -!- SUBUNIT: Monomer or homodimer; in equilibrium (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF276081; AAF81899.1; -.
DR   HSSP; P13500; 1DOK.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   InterPro; IPR008097; Fractalkine.
DR   PRINTS; PR01721; FRACTALKINE.
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Inflammatory response;
KW   Pyrrolidone carboxylic acid; Signal.
FT   SIGNAL        1     23       By similarity.
FT   CHAIN        24     99       Small inducible cytokine A2.
FT   MOD_RES      24     24       Pyrrolidone carboxylic acid (By
FT                                similarity).
FT   DISULFID     34     59       By similarity.
FT   DISULFID     35     75       By similarity.
FT   CARBOHYD     37     37       N-linked (GlcNAc. . .) (Potential).
SQ   SEQUENCE   99 AA;  11007 MW;  433CB88C64EE7A4F CRC64;

  Query Match             55.6%;  Score 218;  DB 1;  Length 99;
  Best Local Similarity   58.0%;  Pred. No. 4.8e-17;
  Matches   40;  Conservative   11;  Mismatches   18;  Indels    0;  Gaps    0;

Qy          5 PSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYL 64
              |  ||:  ||:||| ||| ||: ||||||: |::|:    | ||||||:|||||:  :|
Db         31 PVTCCYNFTNRKISVQRLASYRRITSSKCPKEAVIFKTIVAKEICADPKQKWVQDSMDHL 90

Qy         65 DQISQTTKP 73
              |: || ||
Db         91 DKQIQTPKP 99


RESULT 15
SY02_MACMU
ID   SY02_MACMU     STANDARD;      PRT;    99 AA.
AC   P61275; Q9MYN4;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Small inducible cytokine A2 precursor (CCL2) (Monocyte chemotactic
DE   protein 1) (MCP-1) (Monocyte chemoattractant protein-1).
GN   Name=CCL2; Synonyms=MCP1, SCYA2;
OS   Macaca mulatta (Rhesus macaque).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Macaca.
OX   NCBI_TaxID=9544;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Studer C., Urfer R.;
RT   "Cloning and expression of rhesus monkey monocyte chemoattractant
RT   protein-1.";
RL   Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Chemotactic factor that attracts monocytes and basophils
CC       but not neutrophils or eosinophils. Binds to CCR2 and CCR4 (By
CC       similarity).
CC   -!- SUBUNIT: Monomer or homodimer; in equilibrium (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the intercrine beta (chemokine CC) family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF255343; AAF67756.1; -.
DR   HSSP; P13500; 1DOK.
DR   InterPro; IPR000827; CC_chemkine_sml.
DR   InterPro; IPR001811; Chemokine_IL8.
DR   InterPro; IPR008097; Fractalkine.
DR   PRINTS; PR01721; FRACTALKINE.
```

```
DR   SMART; SM00199; SCY; 1.
DR   PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
KW   Chemotaxis; Cytokine; Inflammatory response;
KW   Pyrrolidone carboxylic acid; Signal.
FT   SIGNAL        1     23       By similarity.
FT   CHAIN        24     99       Small inducible cytokine A2.
FT   MOD_RES      24     24       Pyrrolidone carboxylic acid (By
FT                                similarity).
FT   DISULFID     34     59       By similarity.
FT   DISULFID     35     75       By similarity.
FT   CARBOHYD     37     37       N-linked (GlcNAc. . .) (Potential).
SQ   SEQUENCE   99 AA;  11007 MW;  433CB88C64EE7A4F CRC64;

  Query Match             55.6%;  Score 218;  DB 1;  Length 99;
  Best Local Similarity   58.0%;  Pred. No. 4.8e-17;
  Matches   40;  Conservative   11;  Mismatches   18;  Indels    0;  Gaps    0;

Qy          5 PSACCFRVTNKKISFQRLKSYKIITSSKCPQTAIVFEIKPDKMICADPKKKWVQDAKKYL 64
              |  ||:  ||:||| ||| ||: ||||||: |::|:    | ||||||:|||||:  :|
Db         31 PVTCCYNFTNRKISVQRLASYRRITSSKCPKEAVIFKTIVAKEICADPKQKWVQDSMDHL 90

Qy         65 DQISQTTKP 73
              |:  || ||
Db         91 DKQIQTPKP 99


Search completed: August 29, 2005, 20:35:29
Job time : 174 secs
```